

Middle Eastern Terrorist

BOMB DESIGNS

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"Whoever maliciously damages or attempts to damage or destroy by means of an explosive or fire any real or personal property . . .

- Shall be imprisoned for not more than ten years or fined not more than \$10,000 or both.
- If personal injury results, shall be imprisoned for not more than 20 years or fined not more than \$20,000 or both.
- If death results, shall be imprisoned for life or shall be subject to the death penalty."

— Federal Law Relating to Explosives

Middle Eastern Terrorist Bomb Designs

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Formerly titled: *Bomb Squad:
Defining and Defusing Terrorist Explosives*

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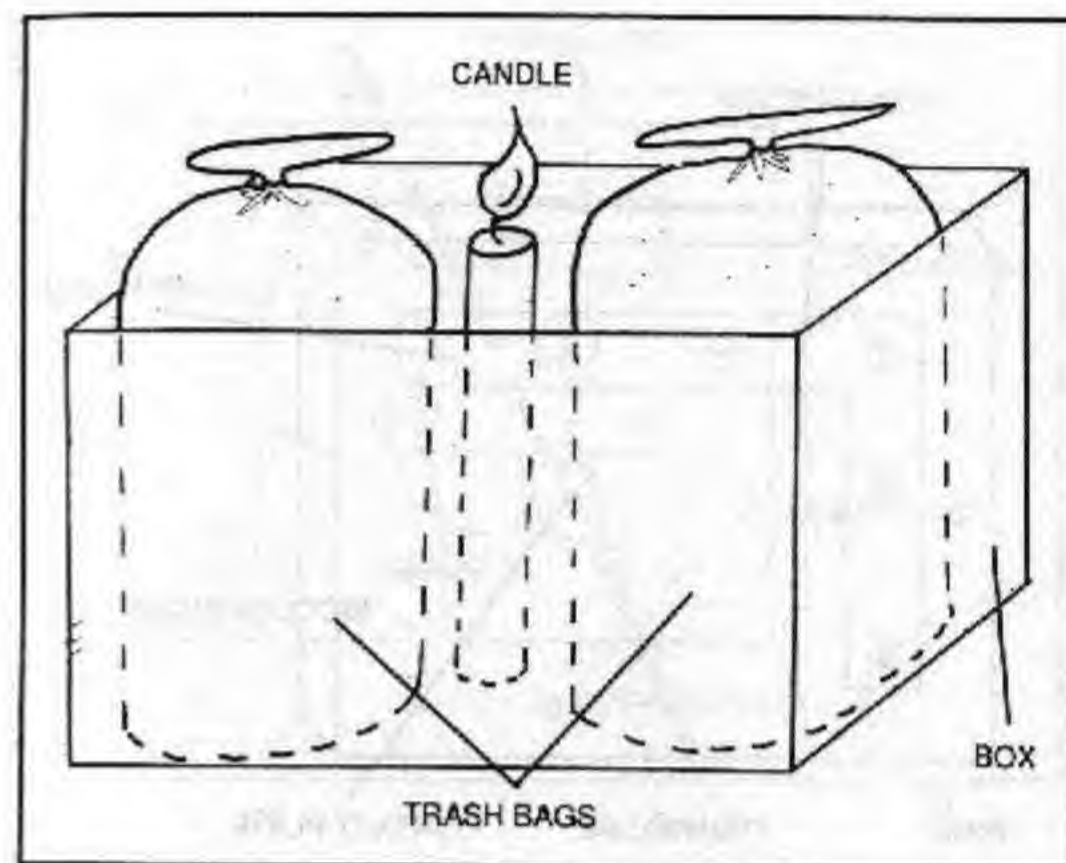
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PREFACE

First I want to say that this book is not a how-to manual. I have not included detailed instructions on placement or wiring. The purpose of this book is to get this data out to police officers, intelligence agents, analysts, and, of course, Explosives Ordnance Disposal (EOD) personnel. Anyone else who attempts to build any of these devices is stupid. In my many years of working in the Middle East, I have seen countless terrorists blown up by their own devices.

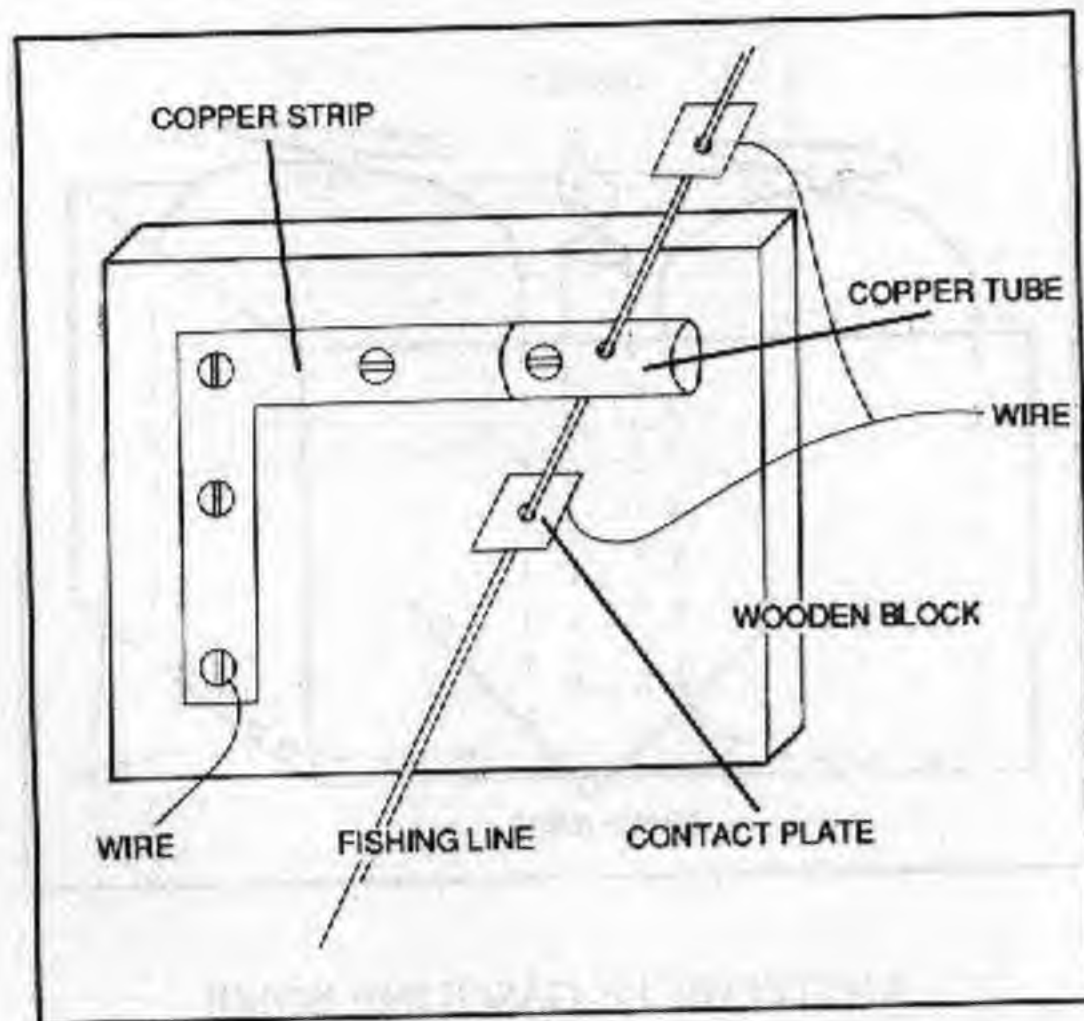
Knowledge of these devices came from my observation of neutralized devices, from interrogations of the designers, from evidence located in terrorist safe houses, or from descriptions of the training terrorists received in their various camps. Most of these designs are in use in the Middle East and are still being taught to new recruits. New members are given classes on how to kill police officers and EOD personnel. Rather than stressing which device is used by which terrorist group, we will just assume that all groups receive the same basic theories of booby-trapping. Only the person who designs the bomb knows what the hoped-for result will be.

These devices are currently being used by terrorists, freedom fighters, and drug traffickers. U.S. police forces had better be prepared.



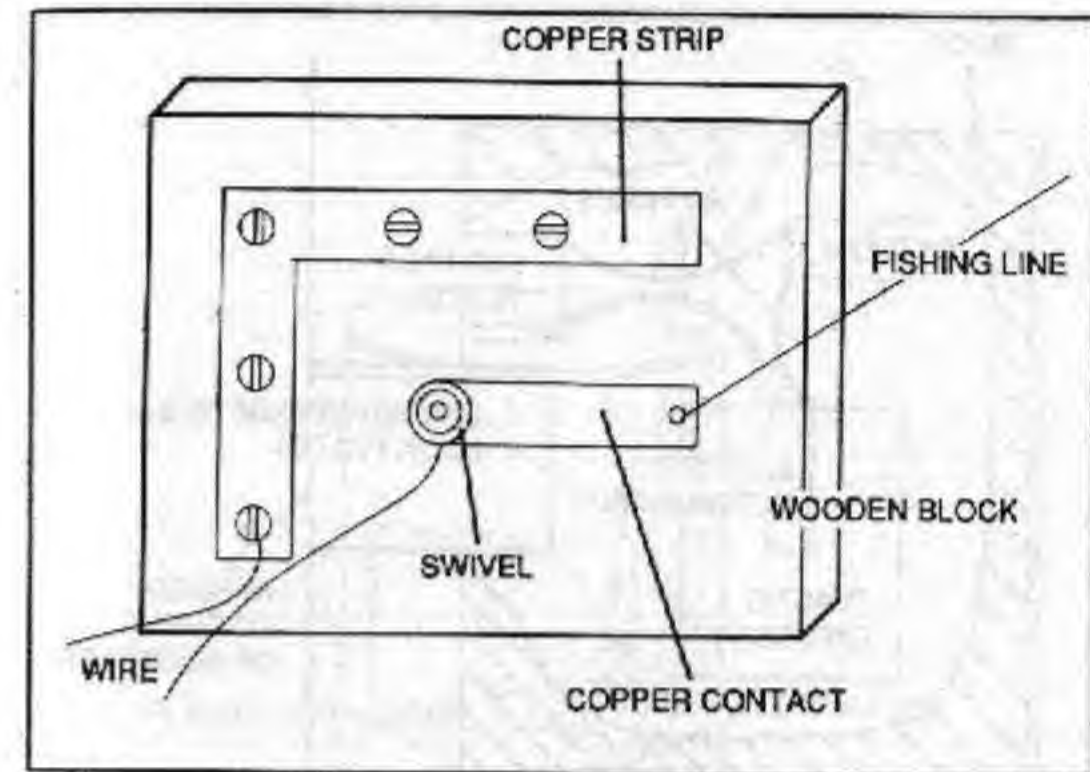
ANTIVEHICLE GASOLINE BOMB

Terrorists often use this simple device to destroy parked vehicles. A cardboard box contains one or two plastic trash bags. The terrorist places a candle in the box with its base touching the bag. After the candle is lit, the box is pushed under the gas tank of the vehicle. By the time the candle melts and ignites the bag and subsequently the gas tank, the terrorist can be several miles away.



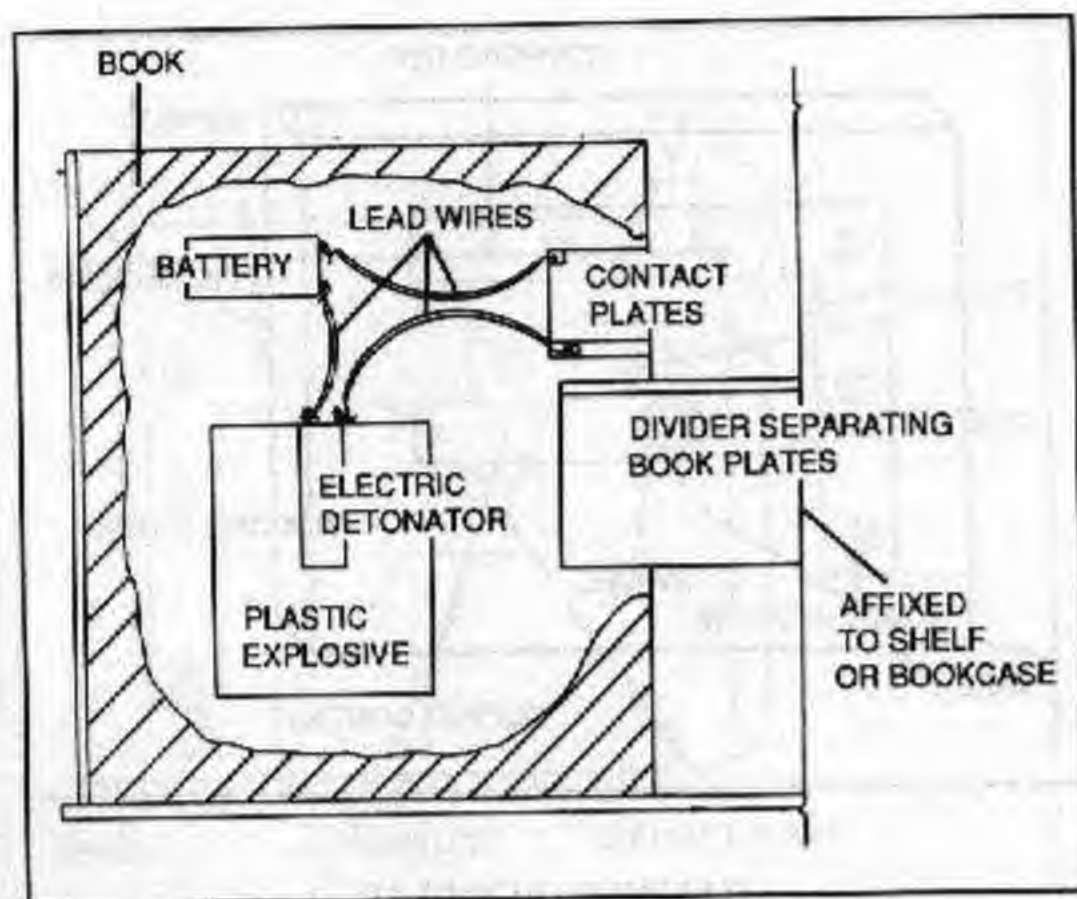
BANNER BOMB I

In various Middle Eastern nations, the display of antigovernment slogans is against the law. Terrorists often place this type of device on an objectionable banner, hoping that the slogan will entice the officer to try to remove it. The explosive charge is hidden at ground level (often in a trash can or planter), and thin wires connect the charge with the contact points and metal strips. A battery is usually placed with the charge. When the officer pulls on the banner, the contact plates on the monofilament fishing line touch the metal strip. These devices are sewn within the banner, making them quite difficult to see.



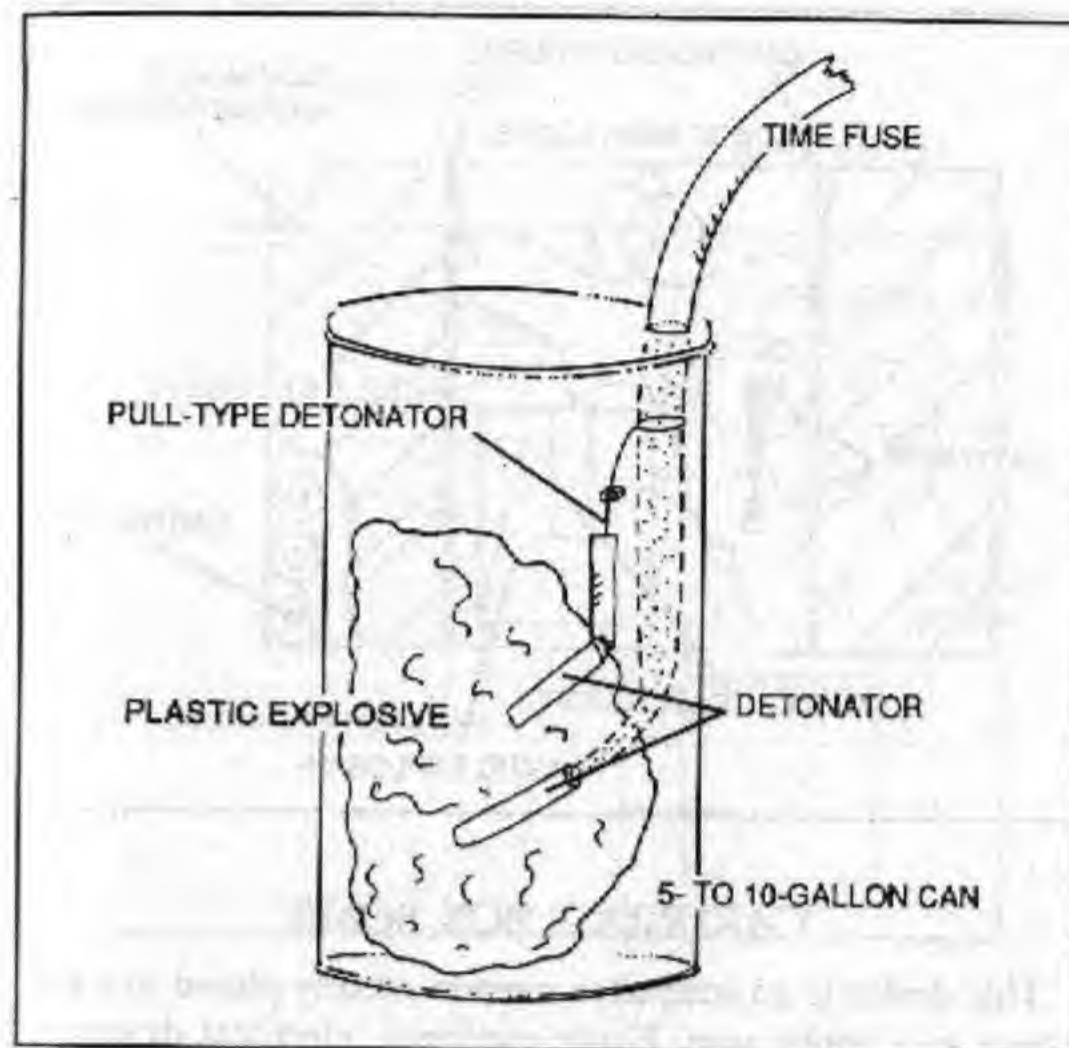
BANNER BOMB II

This ignition device is a variation of the sliding contact system seen on the more common Turkish banner bomb. A fishing line is attached to a swivel contact, holding it away from a copper strip contact. If the banner is moved, the swivel moves toward the fixed strip. Cutting the fishing line will cause the swivel to drop, thus making contact. The use of the device is governed by the success rate of the local EOD personnel in deactivating the other style of banner bomb.



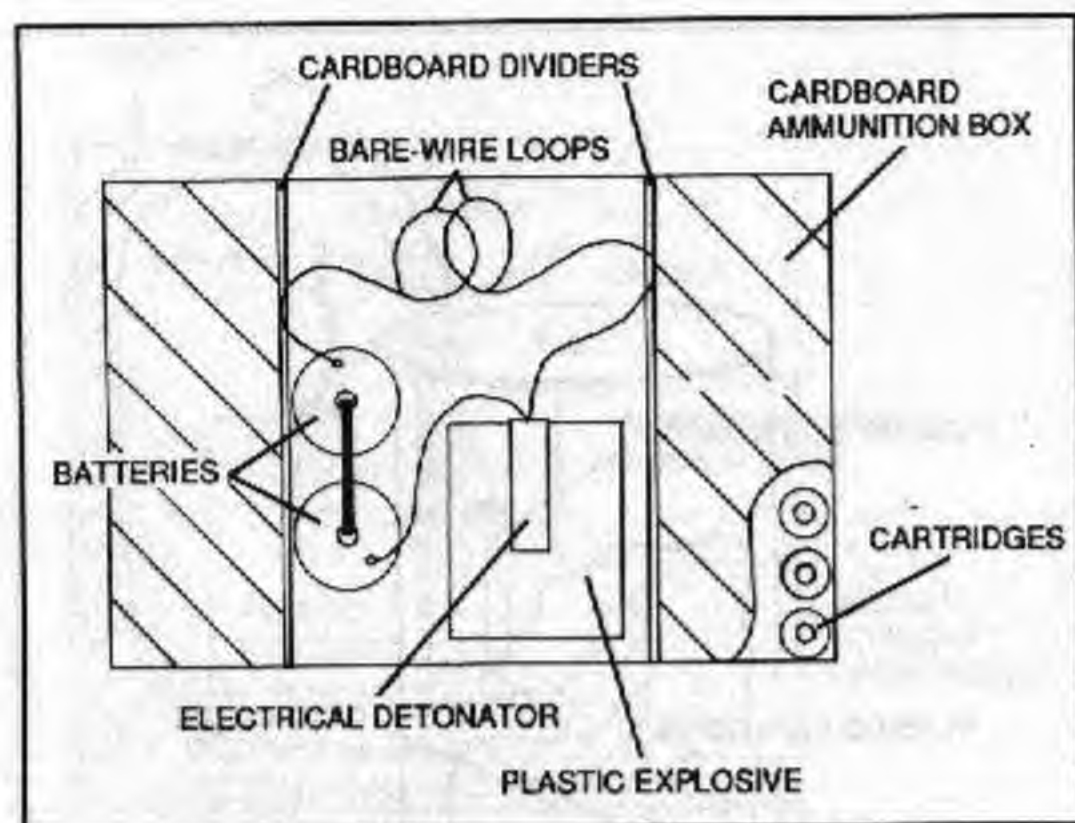
BOOKSHELF DEVICE

This device is an antipolice booby trap. Terrorists usually select a book with an inflammatory title and book jacket, remove the contents, and place the explosive device between the covers. The bomb usually consists of plastic explosive, battery, and electronic detonator. Two metal contact plates are placed opposite each other on the page edges. Mounted on the bookshelf and hidden by other books is a nonconducting divider, usually made of wood. The divider is thin and undetectable by a frontal examination. The loaded book is placed against the divider, and when the book bomb is removed, the divider remains in place connected to the shelf. The contacts touch and the device detonates in the book holder's hands.



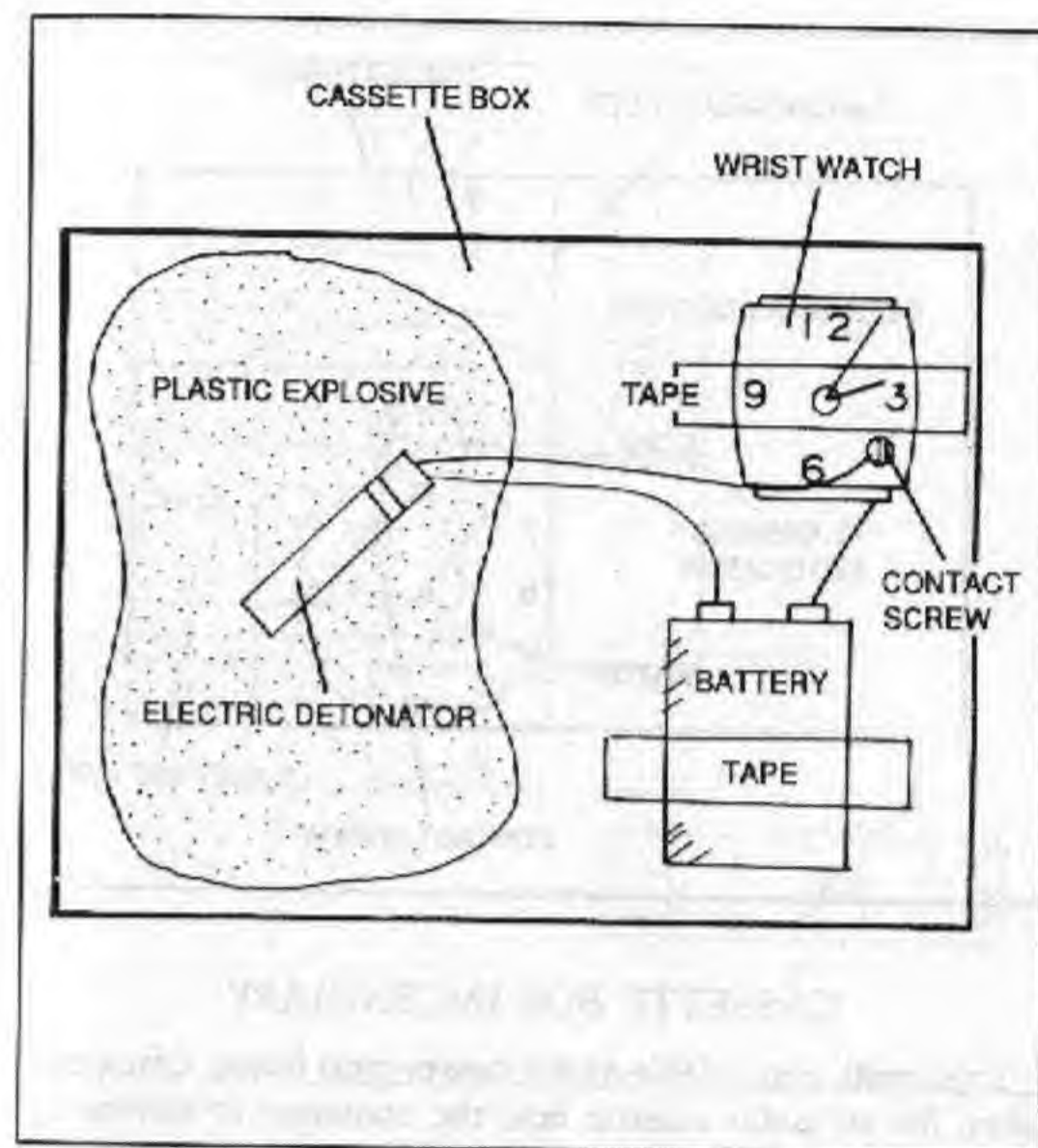
CAN WITH DUAL SYSTEM

This device is a booby-trapped, antipolice bomb. Terrorists place this device in places where police can see it. In Turkey, it was placed in front of a police station and a shot was fired to attract the attention of the police. Upon discovering the device, the police officer saw a five- to ten-gallon can with a burning fuse. Inside the can, the time fuse was connected to a detonator that had been placed into a plastic explosive (a dynamite charge can also be used). Unseen was an internal wire attached to the time fuse and fastened to a pull-type detonator. The detonator was also connected to the explosive charge. As is the normal pattern for the Turkish National Police, the officer attempted to neutralize the device by pulling out the fuse. The device exploded and sent out a spray of shrapnel.



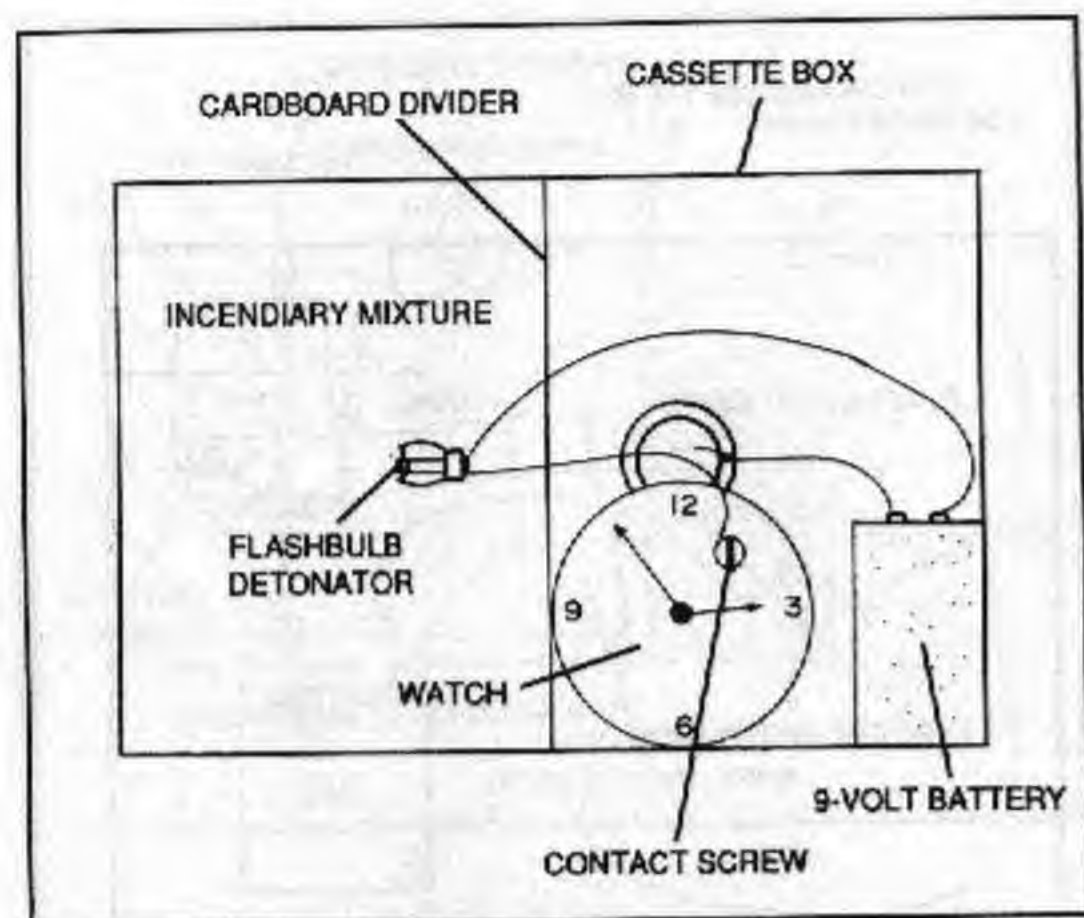
CARTRIDGE BOX BOMB

This device is an antipolice weapon usually placed in a safe house as a booby trap. Plastic explosive, electrical detonator, and batteries are secured in the middle of an empty cartridge box. Two loops of wire, stripped of insulation, are the contact points. Cardboard dividers are affixed to sections of the bullet holder/tray, and each divider is attached to one of the contact wires. Cartridges are then replaced in the trays on each end of the box. When the box is picked up and the end flap opened, the observer sees the ammunition only. If an attempt is made to extract the cartridges, the sliding bullet holder/tray causes the wire and divider to be pulled, thus closing the loops and causing detonation.



CASSETTE BOX BOMB

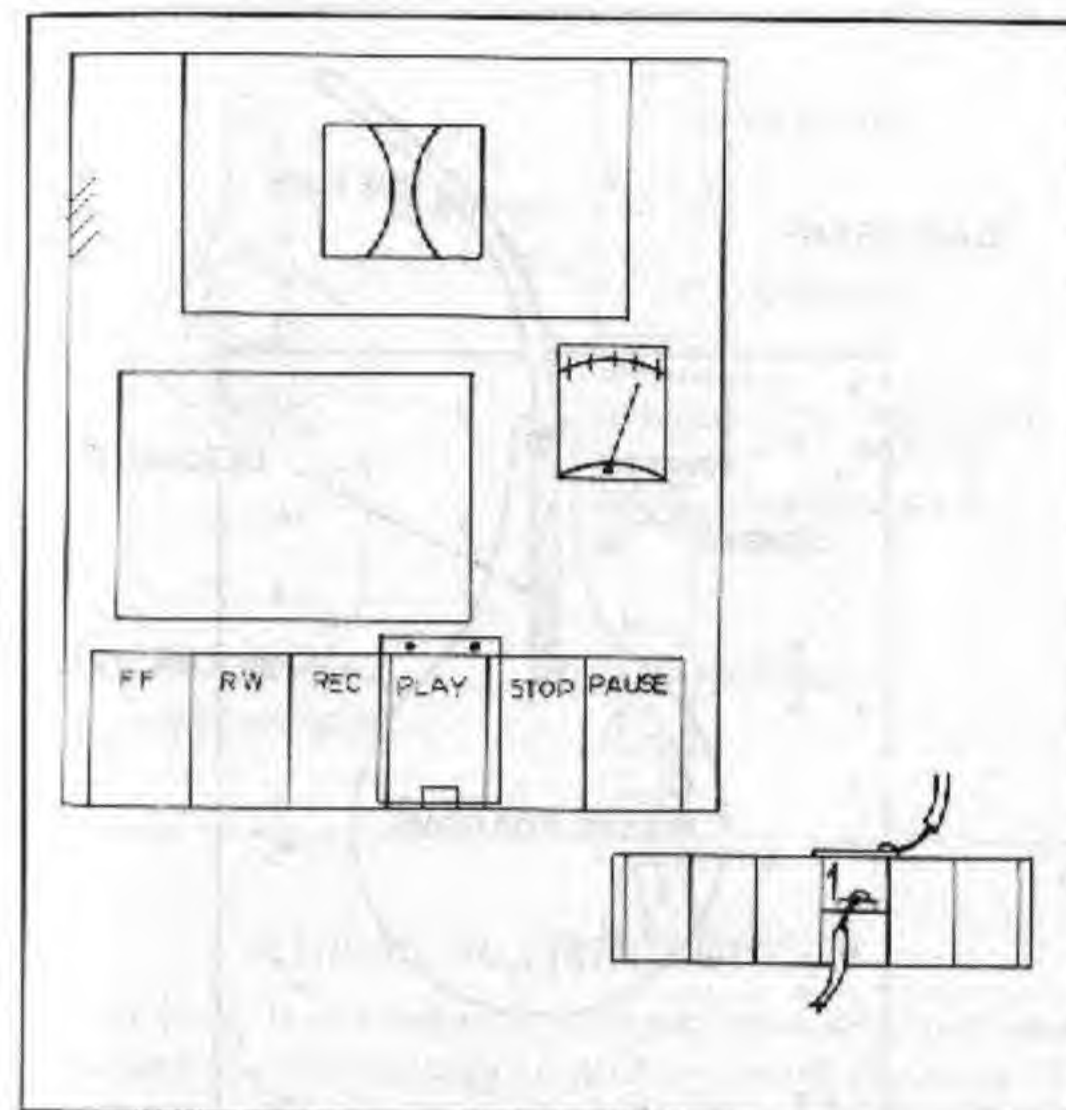
This device is commonly used in Lebanon, where it is placed under car seats, headrests, office chairs, or on butane canisters. It is a compact assassination tool.



CASSETTE BOX INCENDIARY

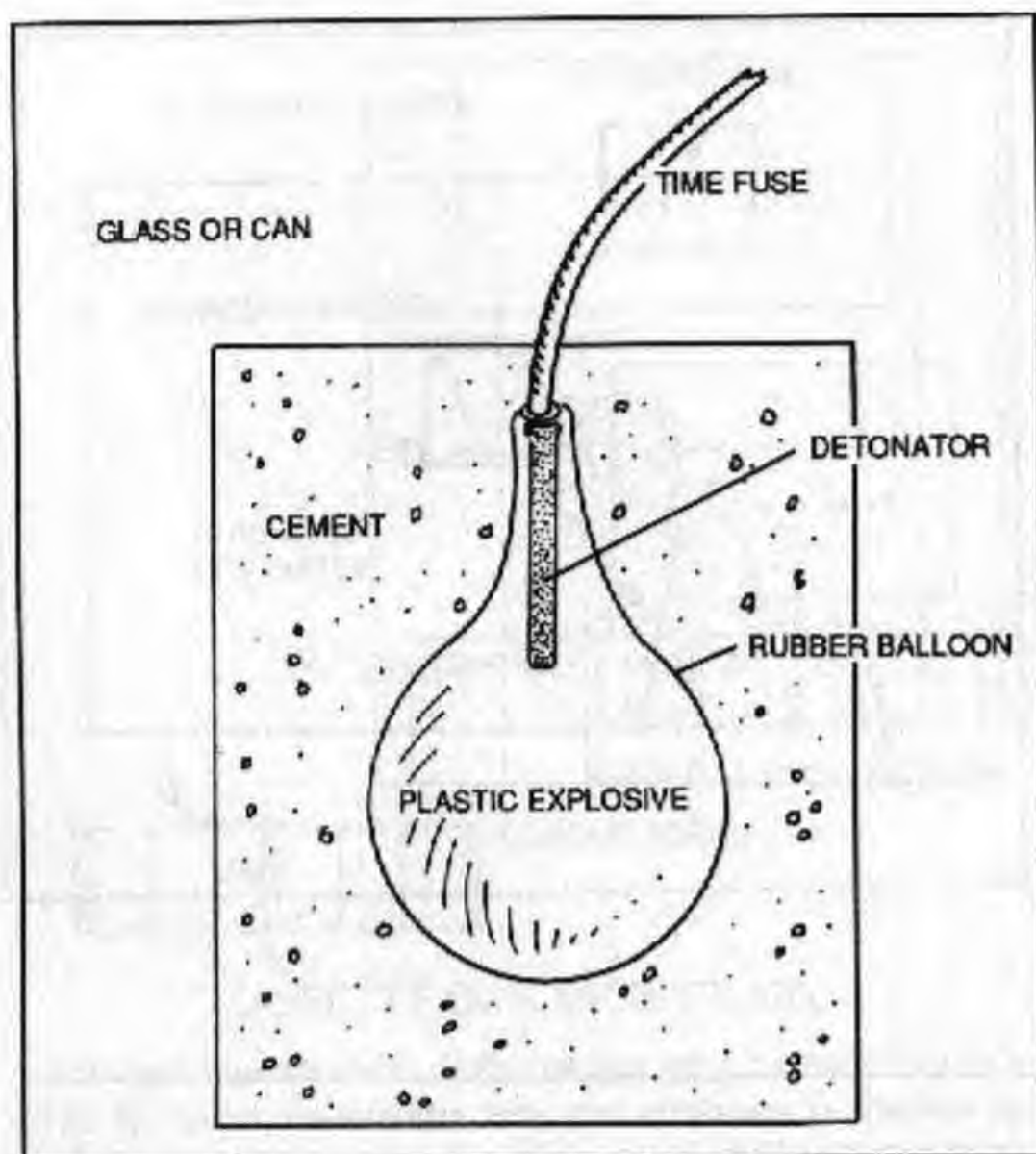
This small, concealable device causes great havoc. Often mistaken for an audio cassette box, the container is divided by cardboard into a battery/timer compartment and an incendiary-compound compartment. A broken flashbulb, removed from a flash cube, is connected to the watch and battery in the common way. The bulb is sometimes filled with black powder and then inserted into a sugar-chlorate mixture.

These devices are often taken into stores and hidden in stacks of merchandise. In one case it was used in a lumberyard, where it caused extensive damage.



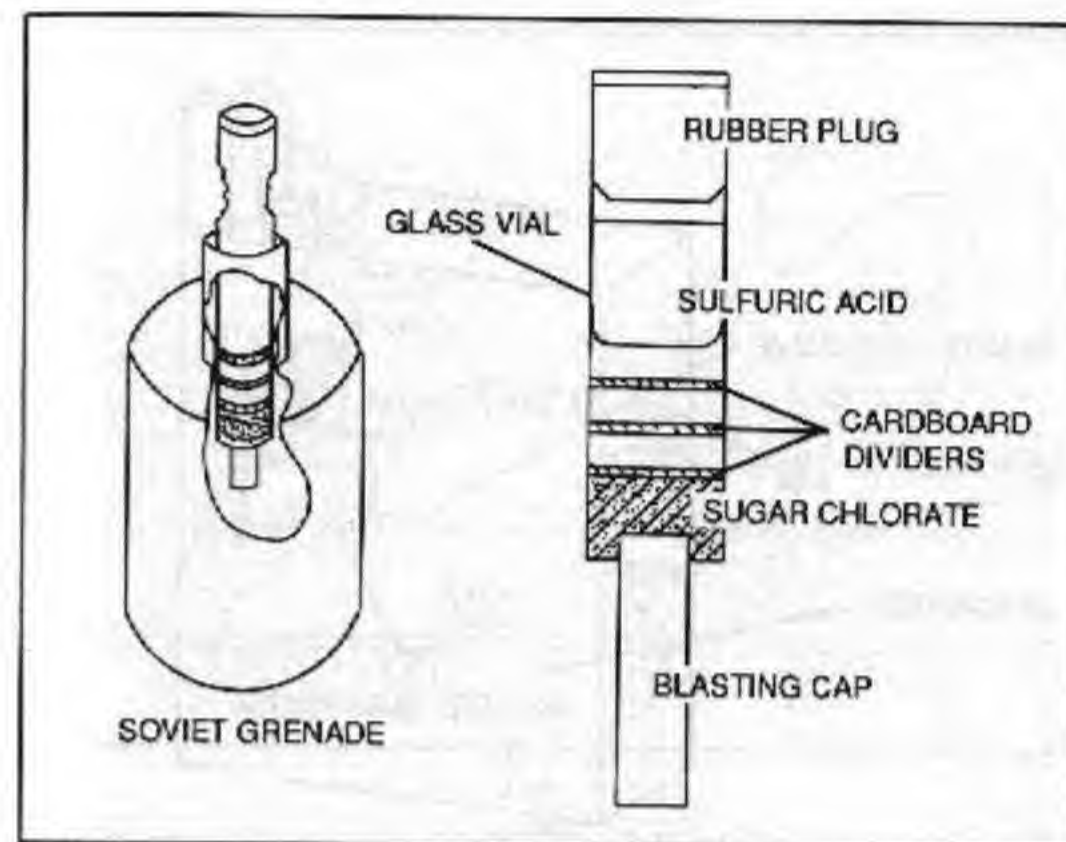
CASSETTE PLAYER DEVICE

The most innovative device to be seen recently uses a cassette player/recorder with automatic cutoff capability. The device can run off its own battery power or, if placed in a vehicle, can use the vehicle's battery. A contact point is placed on the "play" button. A second contact strip is placed over the play button so that when the tape runs out or the stop button is pushed, the two contacts touch and detonate. The device is often placed in a vehicle parked in a busy pedestrian area. The play button is depressed, the charge armed, and the volume turned up full blast. The tapes usually play antigovernment propaganda to attract policemen, who attempt to shut off the device. When the "stop" button is depressed, the bomb is set off.



CEMENT HAND GRENADE

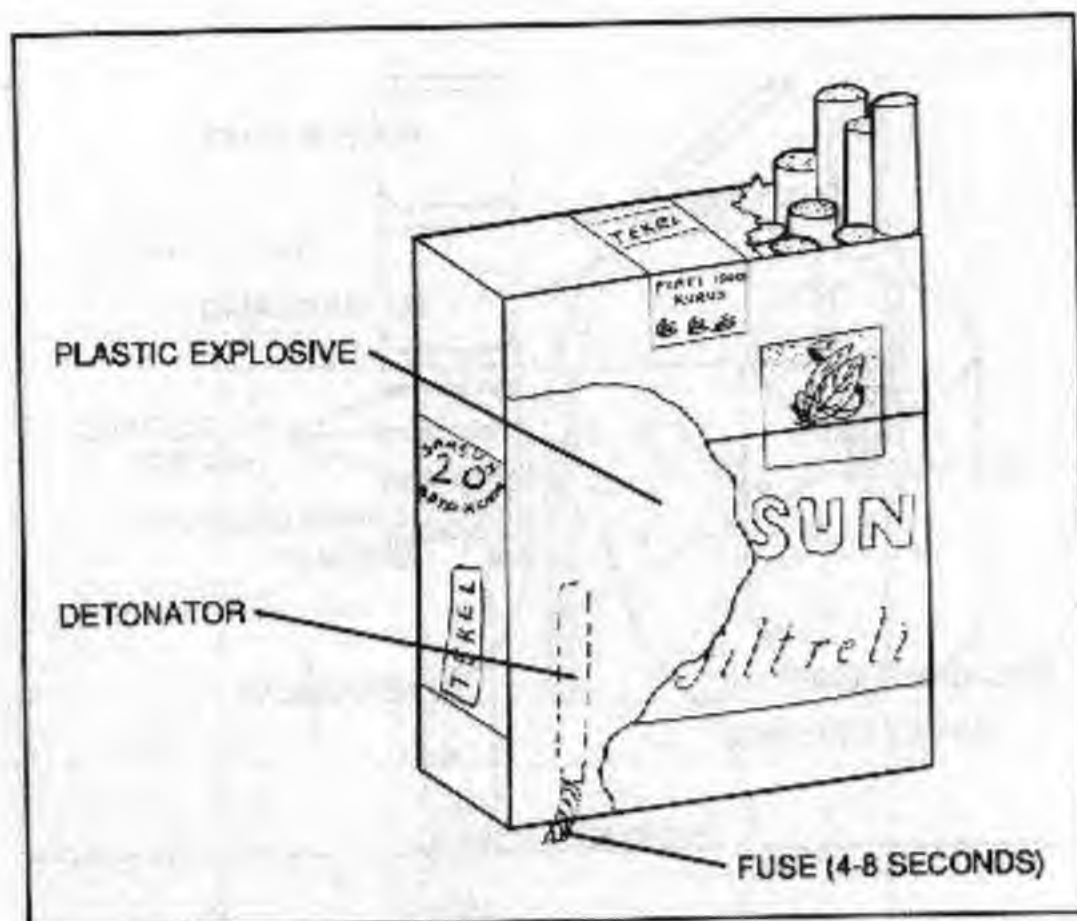
This explosive is an inexpensive, simple antipersonnel explosive. A plastic explosive or TNT is placed in a plastic bag or rubber balloon. A detonator with a time fuse is inserted into the explosive. The balloon or bag is placed into the bottom of a can or glass bottle, while cement is poured into the container. The explosive is held in place so that it will be in the center of the cement. When the cement hardens, the glass or plastic can be broken away, but more often, it is left in place to add to the shrapnel effect. The device can be thrown and is effective within a ten-meter area.



CHEMICAL FIRING DEVICE

This device is an example of a chemical time-delay detonator. An aluminum tube is crimped onto a nonelectric detonator. The blasting cap and approximately one-half inch of the tube are filled with a sugar chlorate mixture. Several tight-fitting cardboard dividers, often waxed to retard saturation, are wedged at intervals above the sugar chlorate. A sealed glass vial of sulfuric acid is placed above the cardboard dividers, and a rubber plug is used as a stopper for the tube.

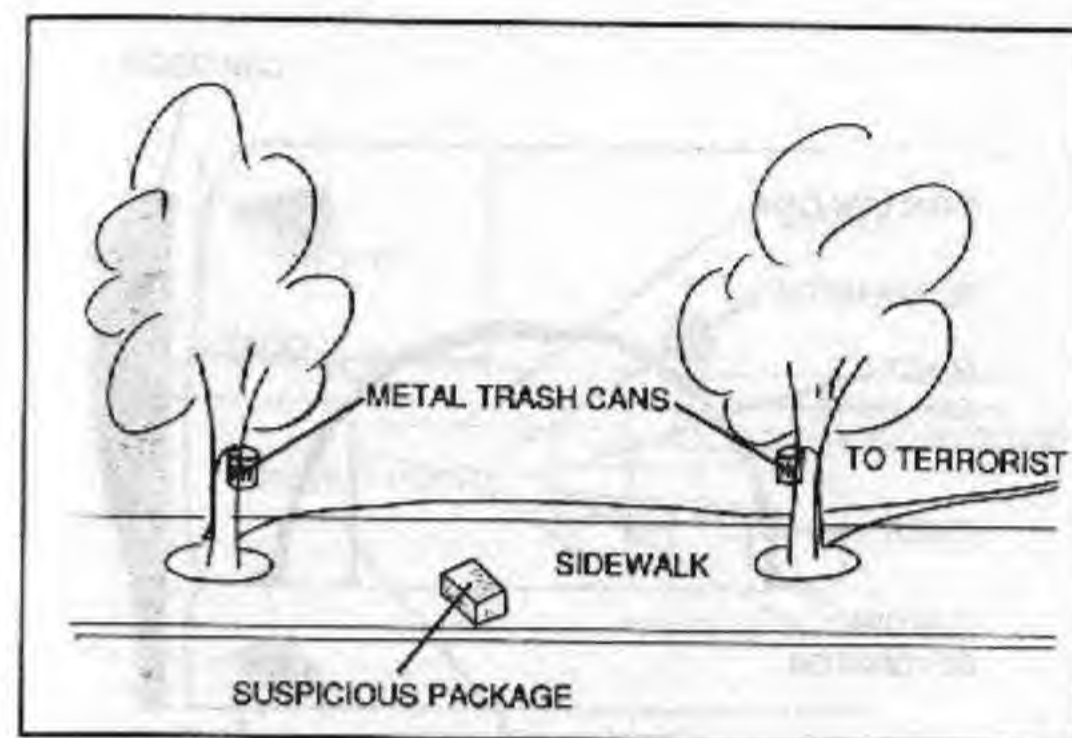
This device has been used by fitting it into the cap wells of TNT demolition blocks and into hand grenade bodies. The upper portion of the tube is crushed by hand or with pliers, causing the acid to spill and eat through the dividers. When the sugar chlorate/acid reaction begins, the blasting cap is detonated.



CIGARETTE BOMB

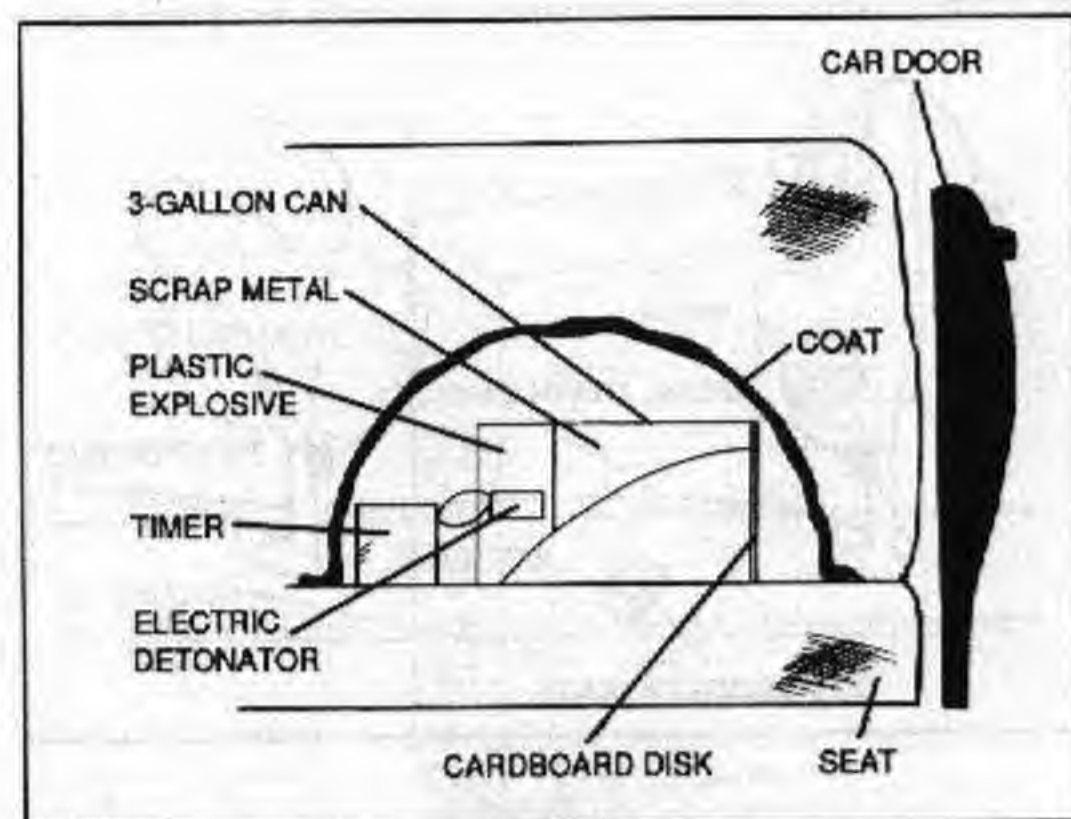
This device has been used in Turkey for some time. Originally black powder was used to scare people and create panic in crowded areas. Modifications to the device made it more powerful and versatile in its uses. Today in Turkey, the operation is as follows:

An ordinary package of Turkish cigarettes is partitioned and a plastic explosive placed into one side. A small hole with a projecting time fuse is visible at the bottom. The fuse is short and usually split to facilitate its ignition capability with a match. Cigarettes conceal the explosive device. Terrorists use this device to create panic since it detonates with a loud explosion. It can be thrown or dropped into crowds, tossed into a vehicle, or dropped into a police guard station. The explosive effect is similar to that of a letter bomb. The fuse delay is short (three to five seconds), and faulty fuses have caused many injuries to terrorists.



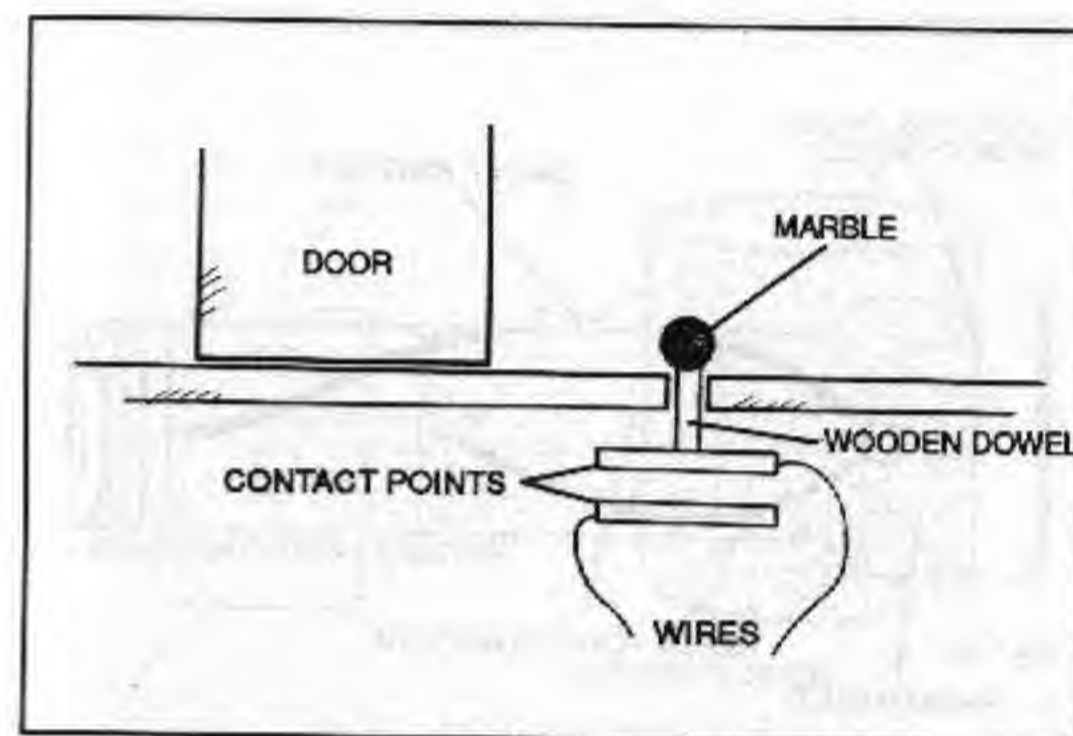
COMMAND-DETONATED ANTIPOLICE/EOD DEVICE

Overseas police and EOD personnel are in constant danger of being set up by terrorist groups. Many small explosive devices are lures to bring in the police and EOD personnel, who arrive to secure a crime scene. In one case, a call to a police substation announced that a bomb had gone off on a public street. Arriving policemen found another package left on the street that had the word "bomb" printed on it. When the EOD team arrived to dispose of the bomb, two metal trash cans (hidden in nearby trees) were command-detonated by a terrorist hiding down the block. Very thin wires had been concealed in the sidewalk cracks, dirt, and adjacent fence line. Fragmentation canisters, made with concrete reinforcement rods, had been placed within the city-supplied trash containers.



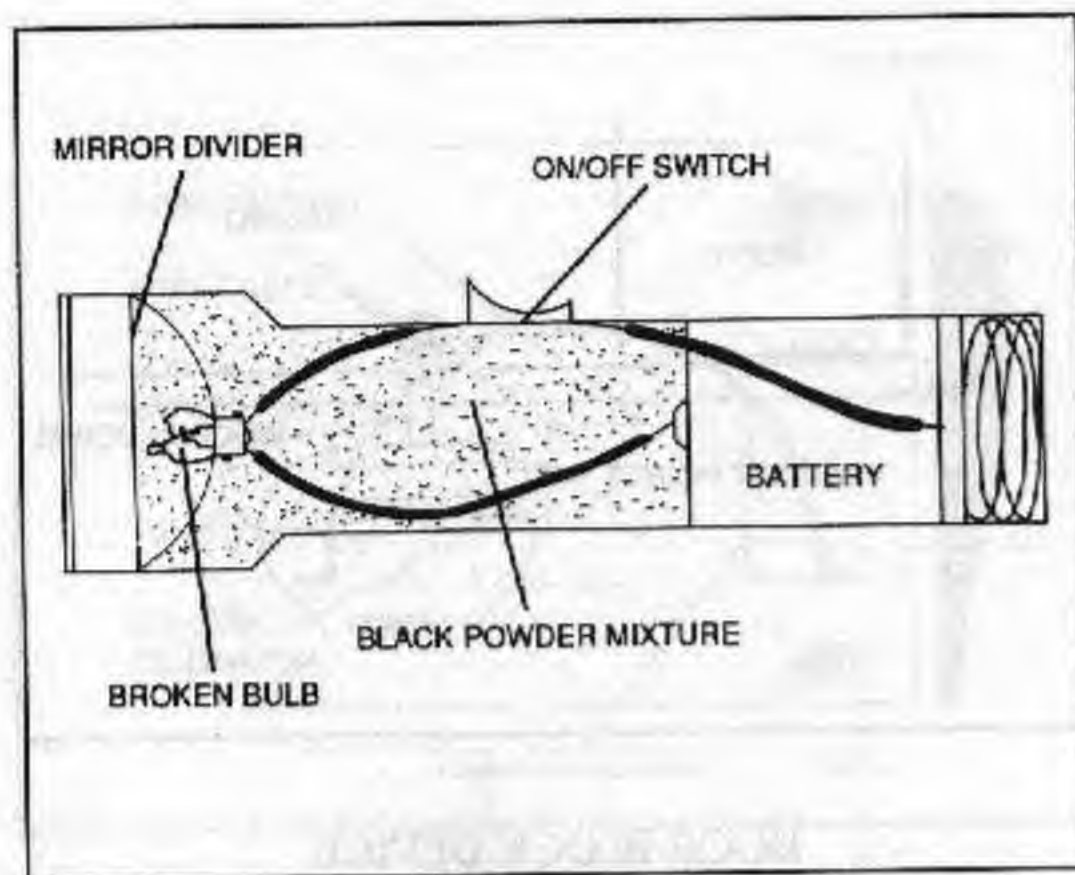
DIRECTIONAL VEHICLE BOMB

This device can kill or wound large numbers of people. Terrorists call it an "aimed" bomb. A large can is loaded with plastic explosive and scrap metal. A blasting cap, battery, and timer are affixed to the can. A round piece of cardboard is taped in place over the mouth of the can to keep the metal from falling out. The device is placed on a vehicle seat, with the mouth pointing toward the target. A coat is often laid over the device to conceal it. At detonation, both the vehicle door and the scrap metal are fired at the target.



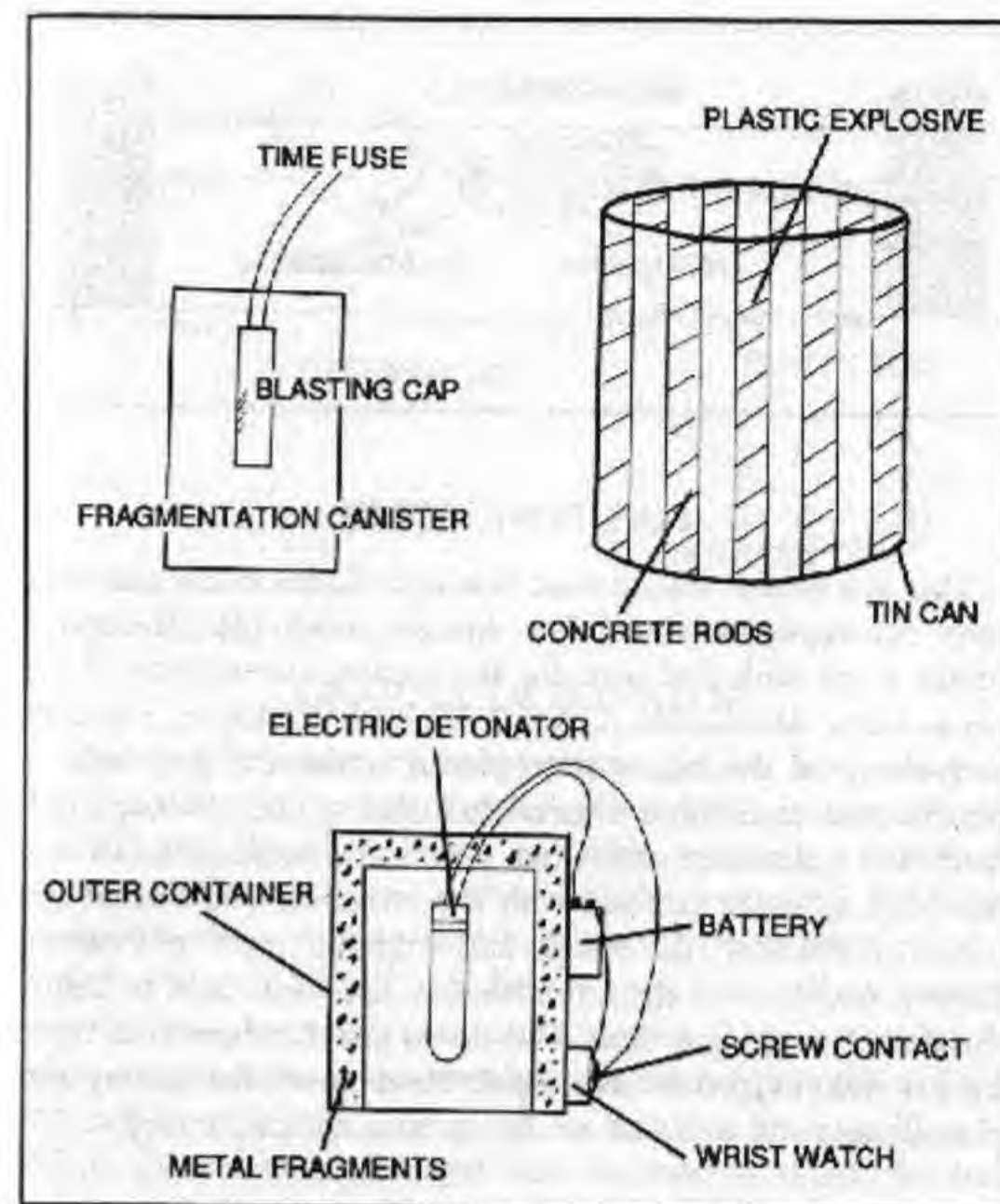
DOOR-BLOCK DEVICE

Often terrorist safe houses are wired in order to kill attacking police or rival organization members. In these cases, the front entrance is booby-trapped, and the occupants of the house use rear or side entrances. A charge of up to several pounds of plastique can be hidden in the front steps or under the floorboards. One end of a wooden dowel is attached to one of two contacts and inserted through a hole in the floor. A marble is glued to the protruding end of the wooden dowel. When the door is pushed against the marble, the marble breaks free from the glue and releases the dowel and contact plate. When the contacts touch, the entire floor and door area detonate.



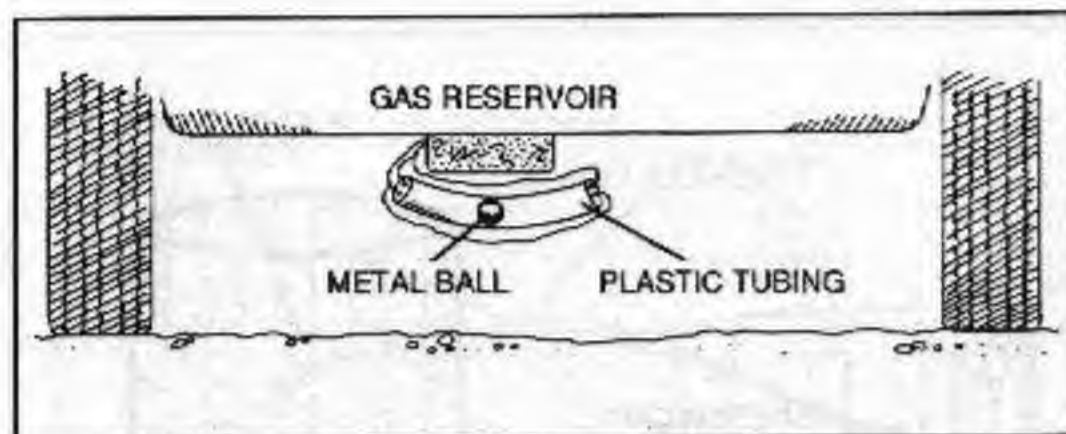
EXPLOSIVE FLASHLIGHT

This is another device terrorists often leave in safe houses as antipolice booby traps. A standard flashlight, using a normal contact switch and battery, is filled with black powder. The light bulb is broken and filament wires are exposed to the powder. Often a mirror or plastic lens cover the black powder and bulb so a casual glance won't reveal them. When the flashlight switch is pushed, the device detonates.



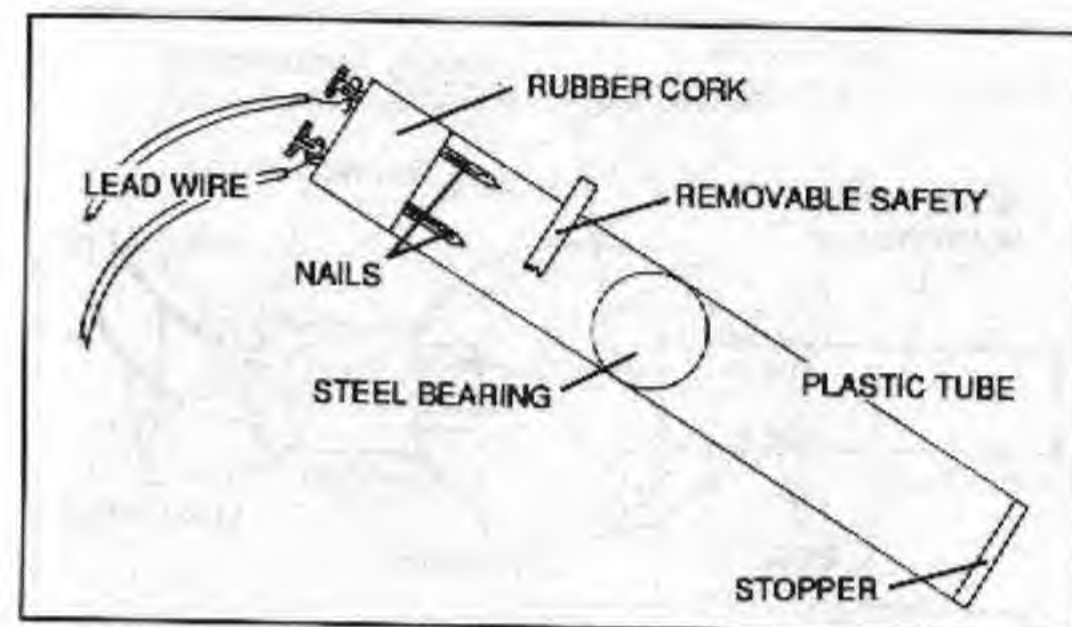
FRAGMENTATION CANISTER

This highly effective antipersonnel device is constructed by placing several concrete reinforcement rods in a three-pound tin can. The rods are partially sawn through to aid in separation during detonation. Plastic explosive is pressed into the can and an electric detonator is inserted. A simple battery and watch system provides the power source. In the Middle East, the can is often placed within a larger container and the space between filled with metal fragments.



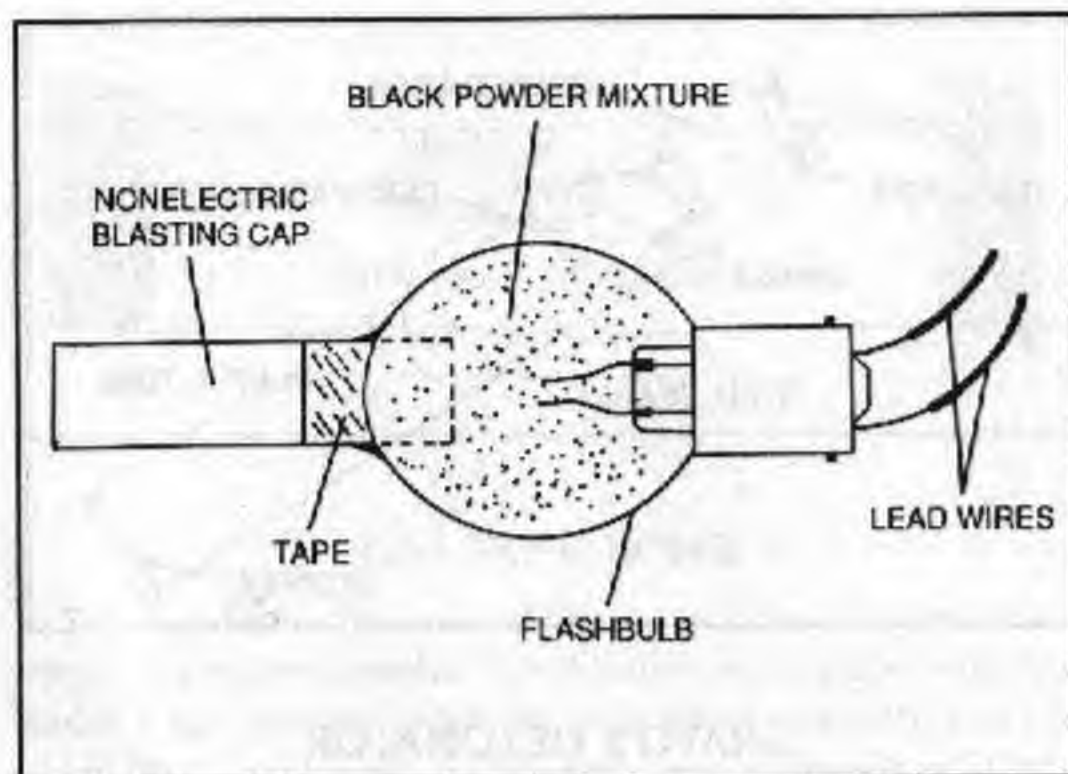
GAS TANK BOMB

This is a device that seemed like a good idea in the planning stage but was unsuccessful. The objective was to place the device under a gas tank and wait for the routine movements of the car to cause detonation. A charge of plastic explosive, a battery, and electrical detonator were placed under the gas tank. A plastic tube containing a metal ball that would roll back and forth was positioned, and when a turn was made, the ball was intended to make contact with the wires on one end of the tube. In actuality, the rough and unpaved roads of Ankara, Turkey, shook loose the adhesive that had been used to fasten the device to the gas tank. The driver saw the bomb fall from his car and stopped to investigate. He removed the battery and plastic hose still attached to the car and escaped injury.



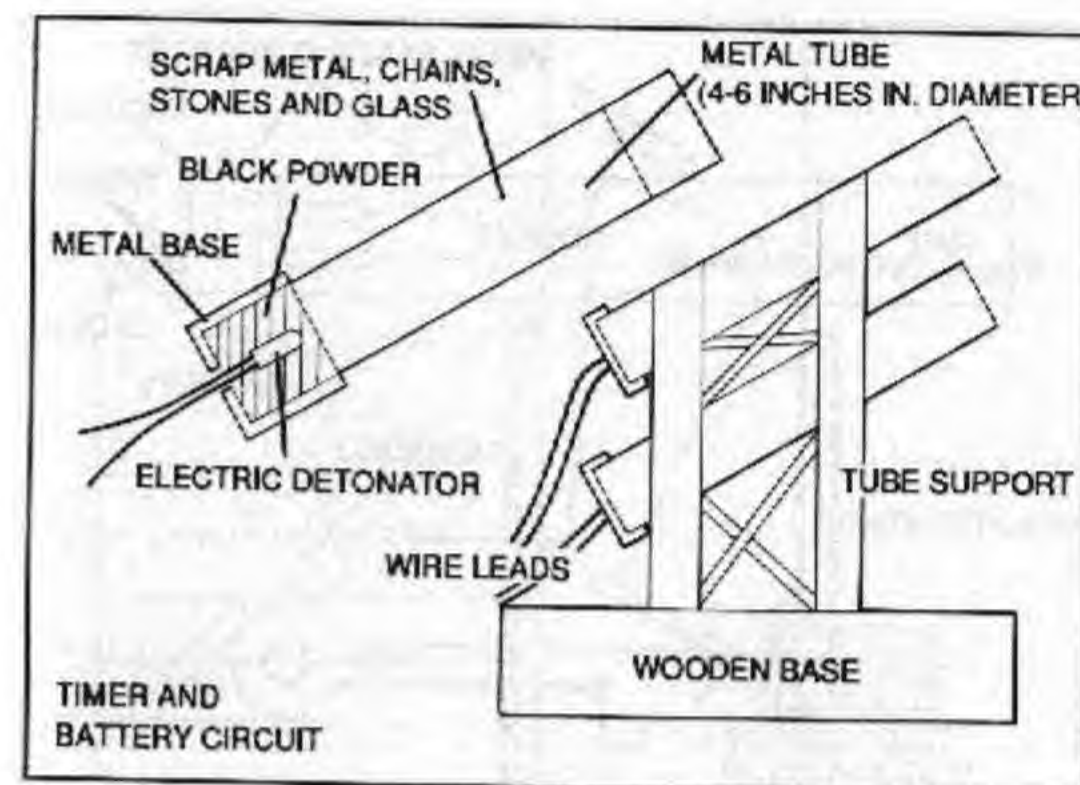
GRAVITY DETONATOR

This simple means of booby-trapping a car or package is really just an antemotion device. A plastic tube, section of hose, or PVC pipe is sealed on one end with a stopper. A rubber or wooden cork is prepared with two nails protruding, as shown in the diagrams. A large steel ball bearing or, in some cases, a tinfoil-covered golf ball or tightly wrapped foil ball, is inserted into the tube. As a safety precaution, a removable wooden matchstick or soda straw is inserted into the side of the tube to keep the ball from rolling. Lead wires are attached to the nailheads. When the safety is removed and the tube is tilted, the ball touches the contact points and the charge is detonated.



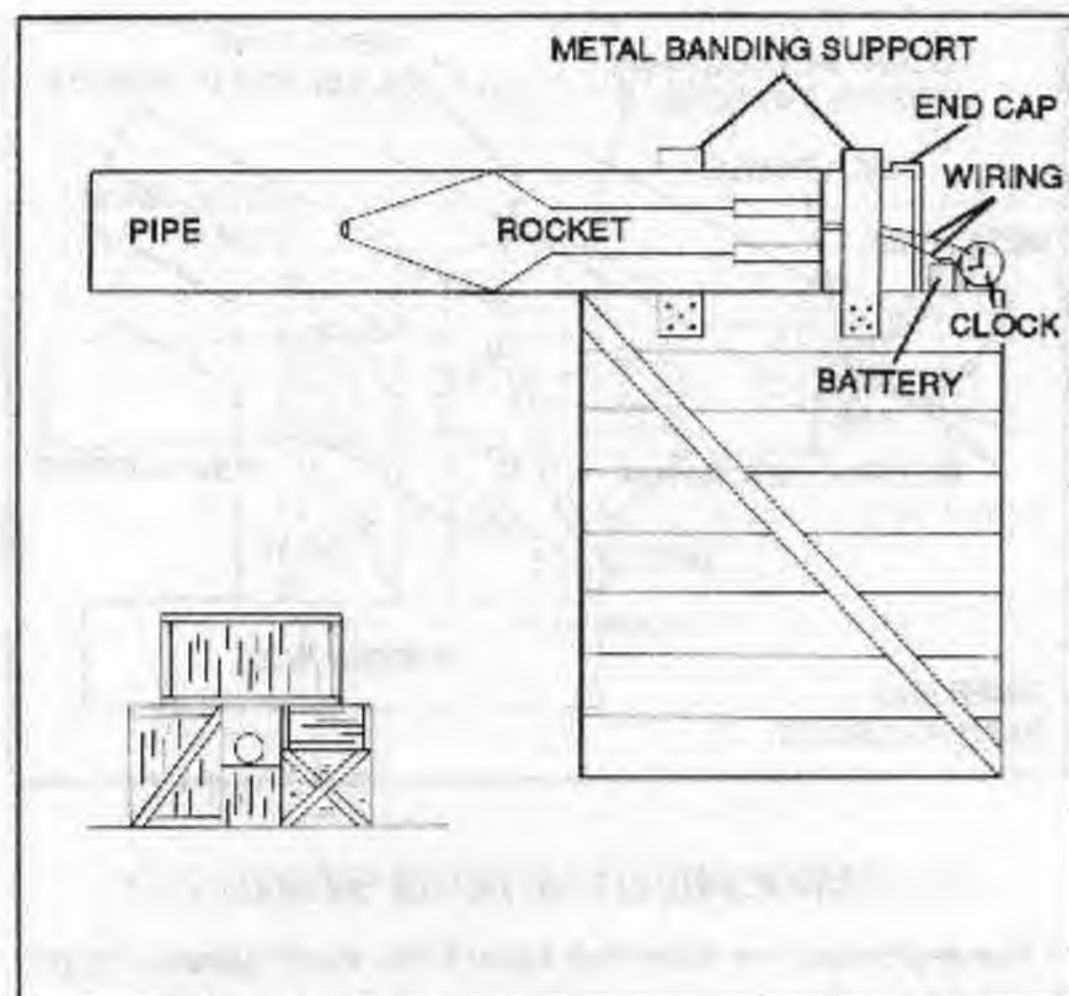
IMPROVISED ELECTRICAL DETONATOR

A photographic flashbulb tip is sanded until an opening is created. The terminal point of the bulb is separated, and lead wires are attached. A mixture of black powder and sugar is packed into the bulb through the opening until it covers the internal wiring. A nonelectrical blasting cap is inserted into the black powder mixture and taped to the opening so that the open end of the cap extends slightly into the flashbulb. Upon completion of the electrical circuit, the flash element of the bulb will ignite the black powder mixture and the detonator. Because of the lack of easily obtainable electrical detonators, this adaptation is commonly used.



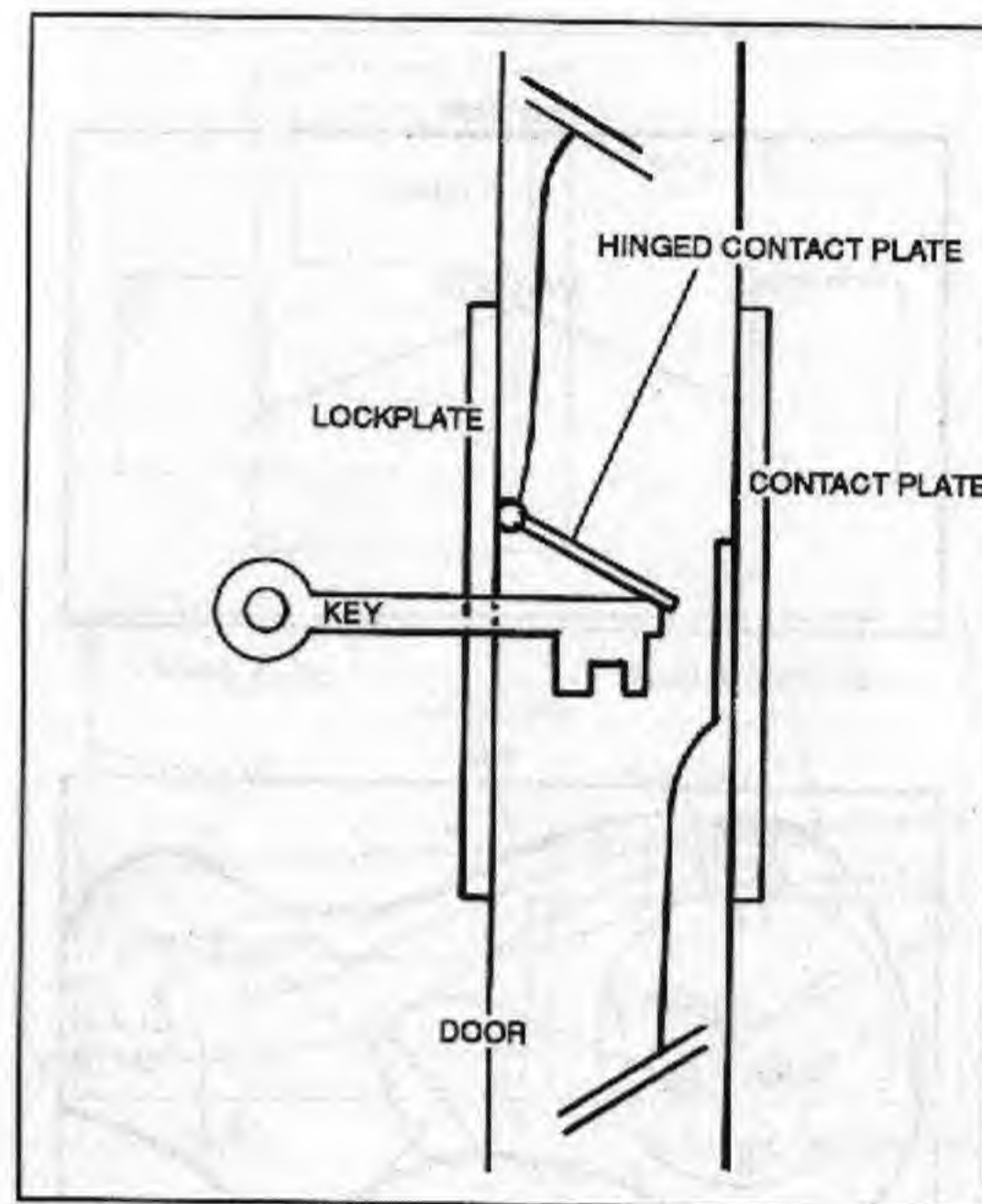
IMPROVISED MORTAR STAND

These devices are rare but have been used against targets (including police stations) during outdoor activities, such as roll call. Terrorists select an apartment close to their intended target and build the explosive device inside. A length of sturdy pipe with reinforced base is used for the tube. Black powder, up to one pound, is placed in the tube. Virtually anything can be used to fill the tube as long as it will inflict damage on soft targets. Such devices have been found constructed with up to four tubes. Electric firing systems connected to timers make it possible for the device to be programmed and left in place, allowing the terrorists to escape the scene before detonation.



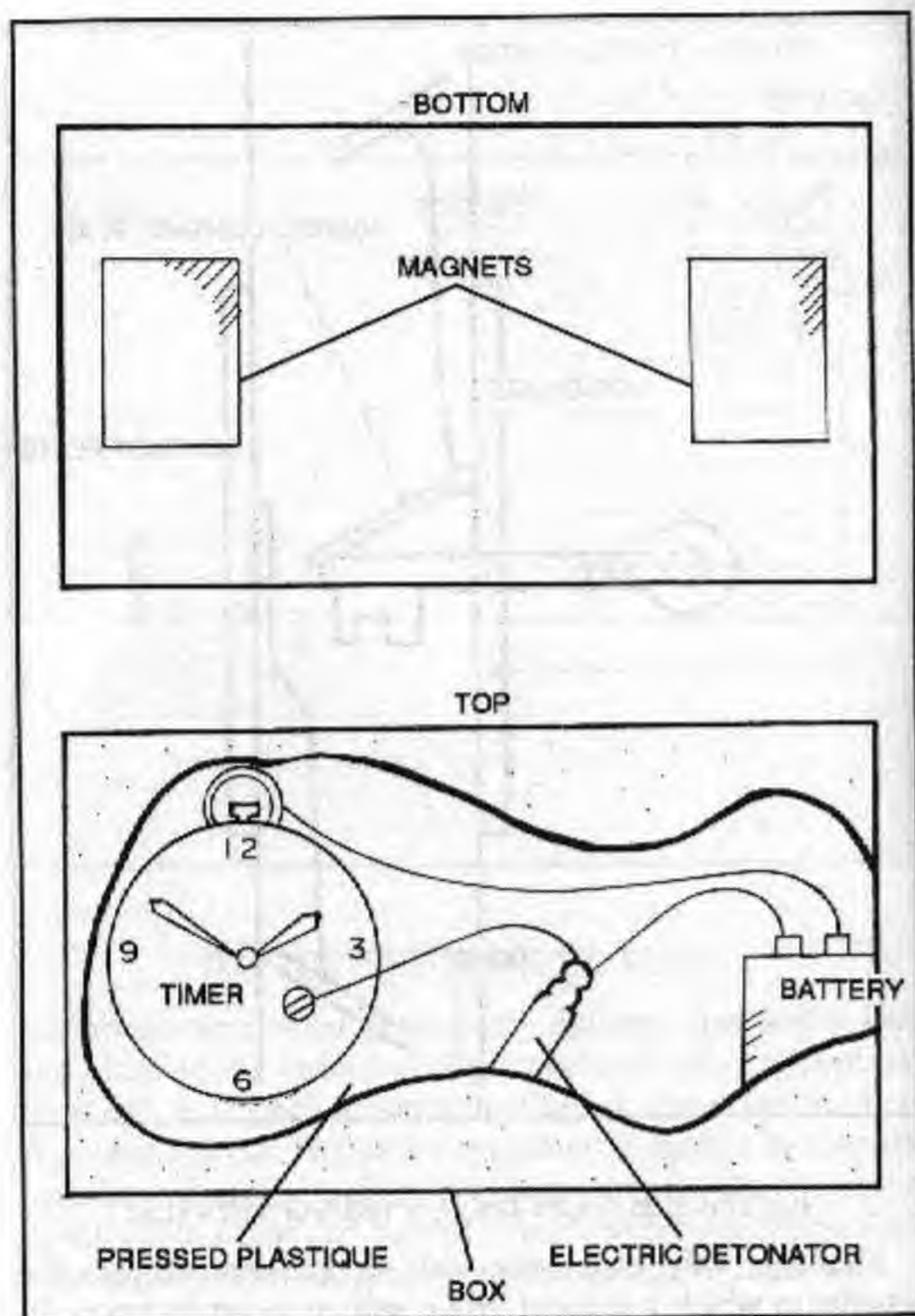
IMPROVISED ROCKET TUBE

Although never used against U.S. facilities, this device has been found in the states partially constructed along with plans for its use. A 3.5-inch rocket is modified so that it can be fired by a timer system. The rocket propellant is ignited by a small incendiary charge set off by the battery/timer. The rocket is placed within a pipe and banded in place with metal strips. The device is pointed toward the intended target and the timer set.



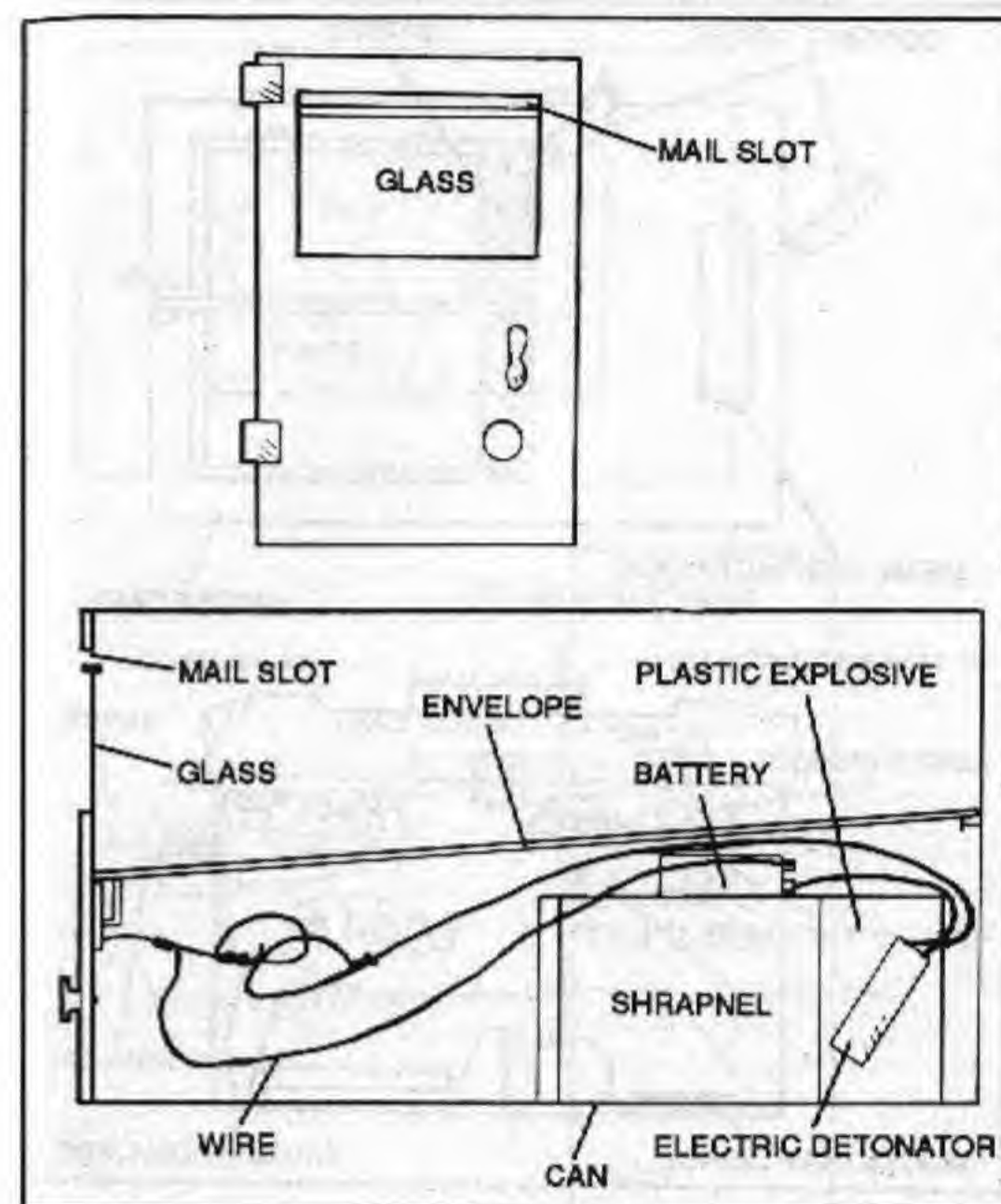
KEYHOLE CONTACT FIRING DEVICE

Although only used once, this device demonstrates the lengths to which a terrorist group will go to get its target. In this case, Lebanese terrorists waited for their target to leave for a vacation, then they removed his front door and emplaced this device. The returning homeowner inserted his key, which bridged the contact points that had been placed within the door. A one-pound charge of explosives had been concealed in the door along with a nine-volt battery and electric detonator.



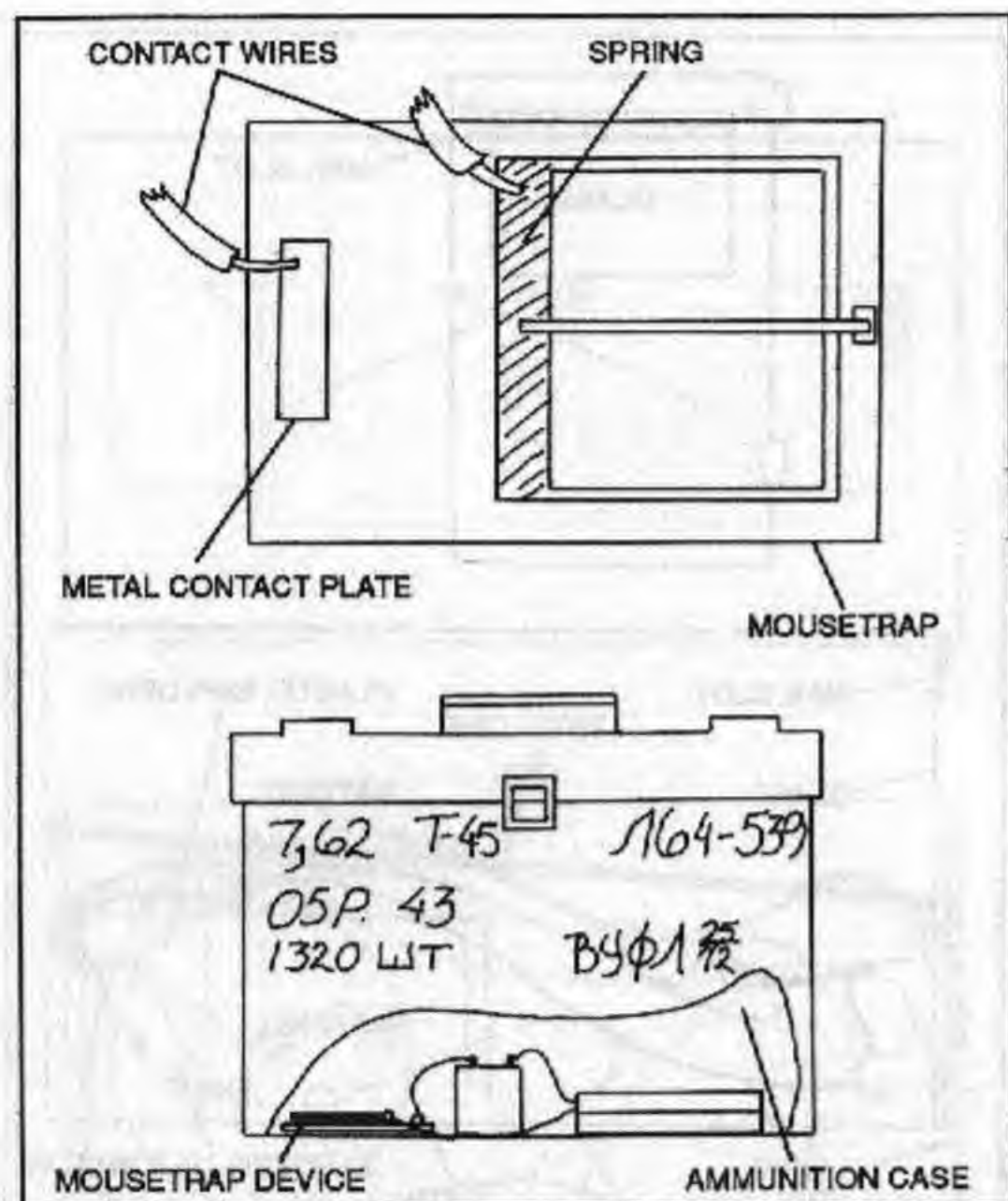
LIMPET BOMB

This bomb is a modification of the cassette device and is intended for use on vehicle doors. The addition of magnets allows the terrorist to easily attach the device to a vehicle.



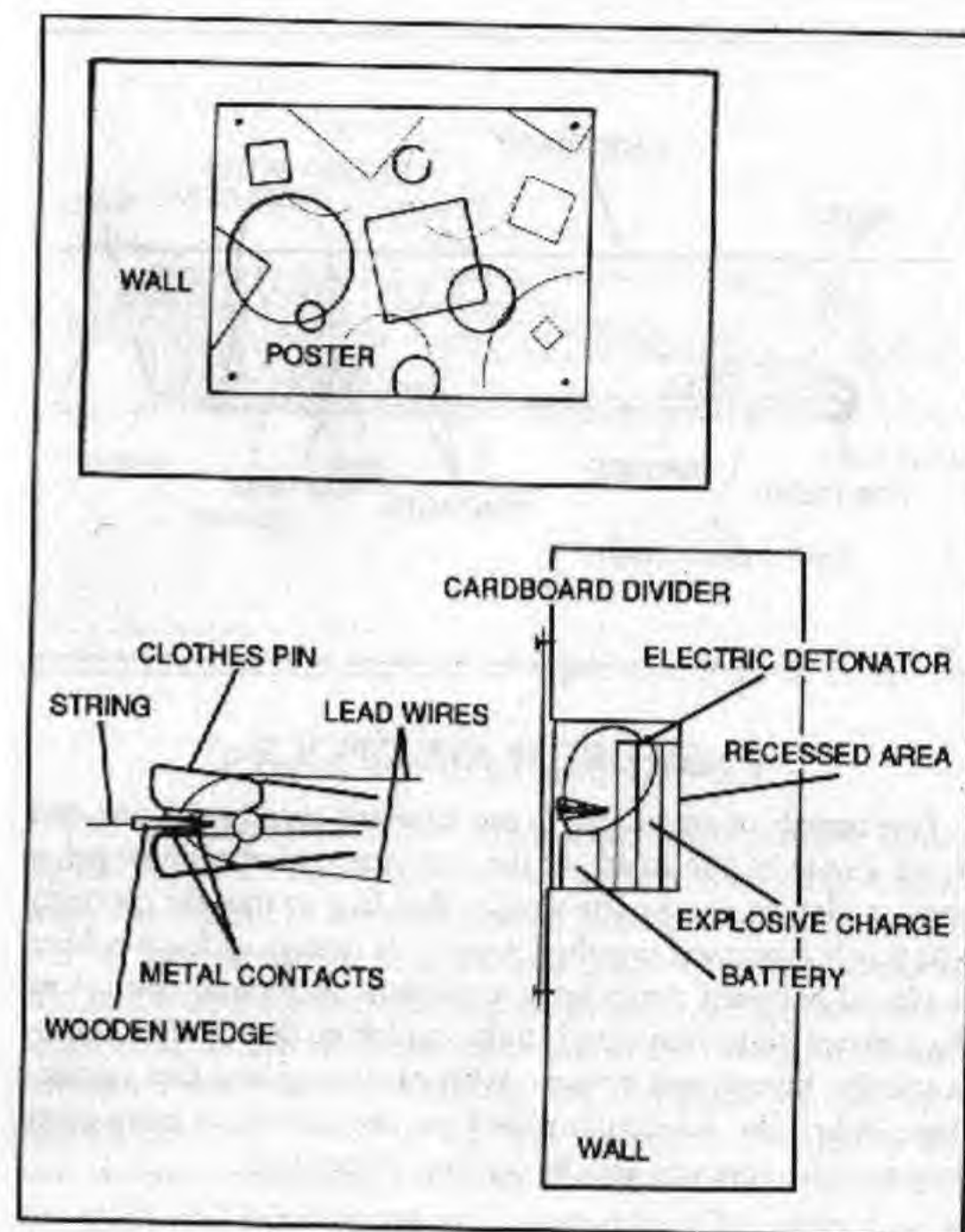
MAILBOX BOMB

This device is used to kill police officers and intelligence personnel who receive their mail in apartment mailboxes. The terrorist uses the risky bare-loop system, which often results in his becoming the victim of his own device. A charge is placed in a small can and laced with nuts, bolts, and nails. A letter is placed over the charge so that only the letter can be seen at a casual glance. When the mailbox door is opened, the bare wire loops pull against each other and detonate the charge.



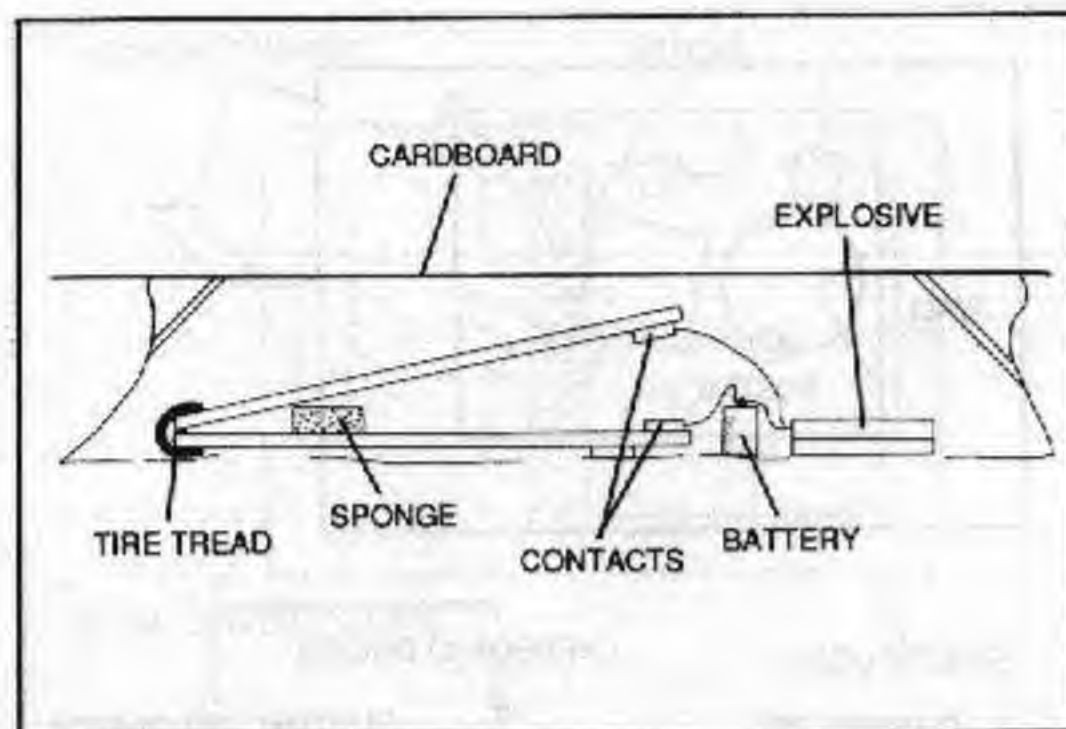
MOUSETRAP DEVICE

This device is an example of a pressure-release booby trap, using an ordinary mousetrap. A metal contact plate is attached to the wooden surface that the trap wire strikes when released. One contact wire is affixed to the metal plate, while the other contact wire is attached to the trap spring. An object, such as an ammunition case, is placed on the open mousetrap and depressed. Removing the object trips the device, causing detonation.



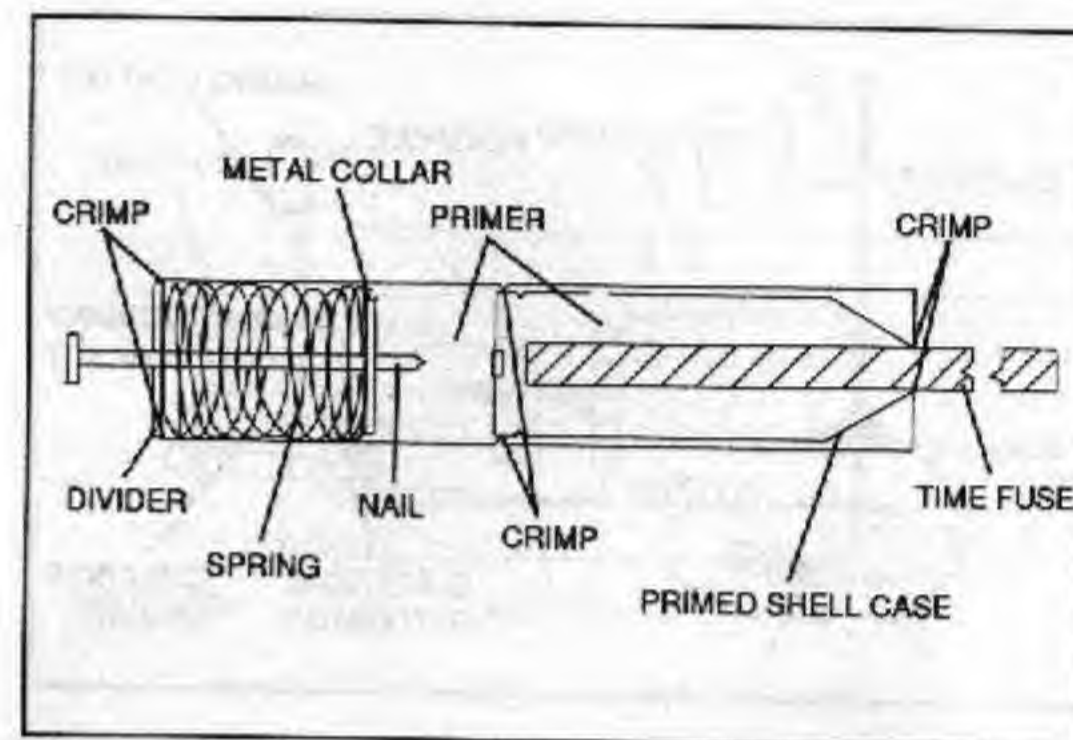
POSTER BOMB

This effective antipolice device is usually directed against street patrolmen, who upon seeing the antigovernment poster attempt to tear it from the wall. Within a recess are hidden an explosive charge, battery, and clothespin device. A wedge, placed between the contact points of the clothespin, has been attached by a string to the poster. As the poster is ripped from the wall, the wedge is removed and the circuit is completed.



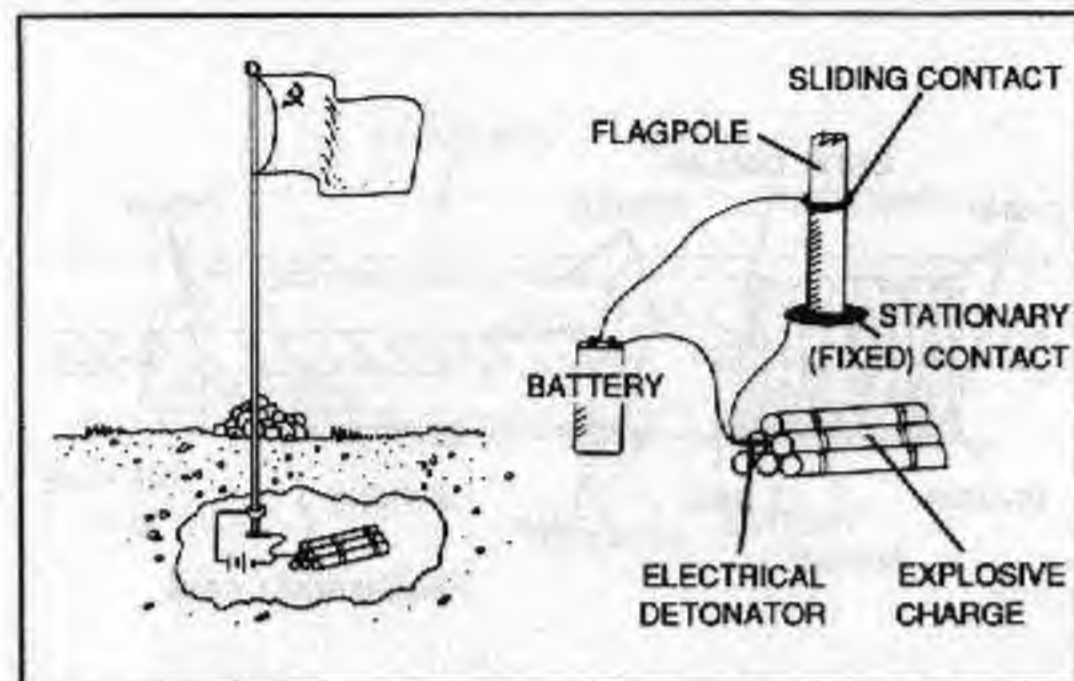
PRESSURE PLATE DEVICE

Two boards of equal length are fastened together at one end using a strip of tire tread. At the opposite end of each board, a contact plate is attached to the interior face so that the contacts will touch if pressed together. A piece of sponge or foam rubber is placed between the boards to prevent accidental contact as the contact plates are wired to the explosive device. The device is usually buried and covered with cardboard and dirt camouflage. When the device is stepped on, the sponge or foam gives way and the contacts touch, causing detonation.



PRESSURE RELEASE DEVICE

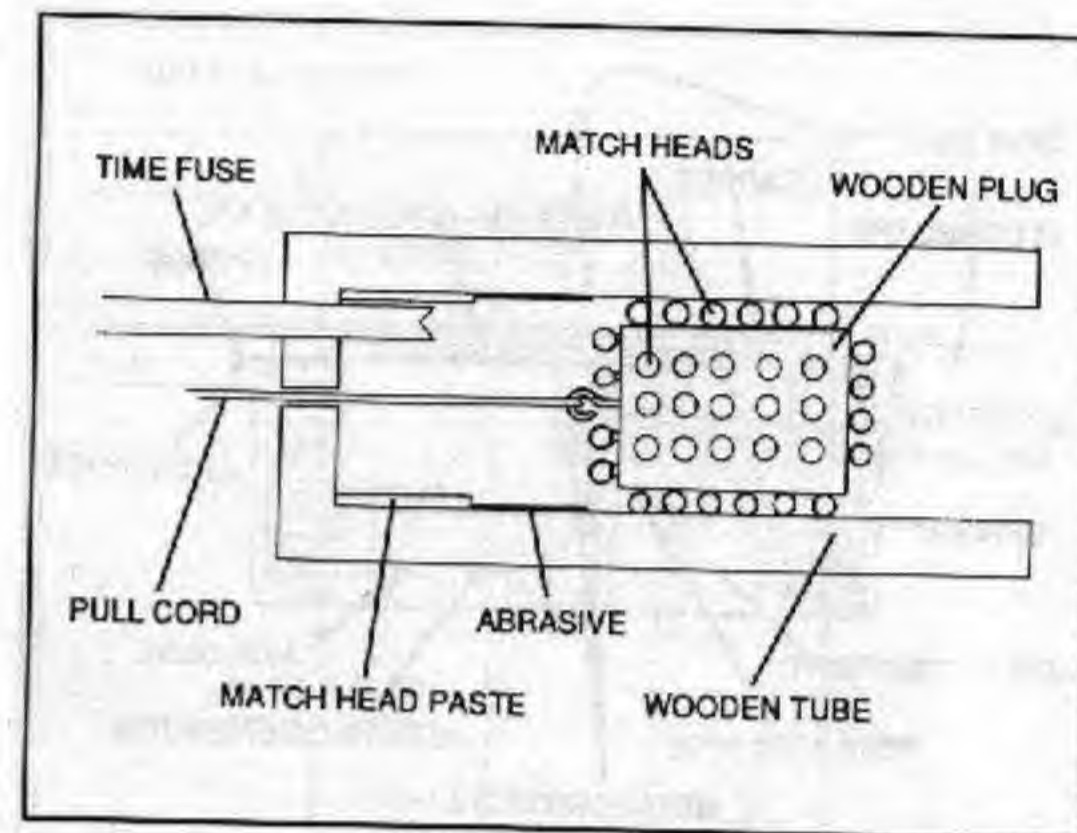
This is a combination pressure-release detonator/fuse lighter device. A primed rifle casing is inserted into one end of a metal tube. The mouth of the shell case should be level with the open end so the case can be crimped into place. The tube should be crimped in the middle, near the shell's head. A nail with a fitted metal collar is placed in the other end of the tube with the nail resting on the primer. A coiled spring is slipped into the tube against the metal collar of the nail. The open end nearest the nail is then closed with a divider and crimped into place with the shaft and head of the nail protruding. The safety fuse is placed in the opposite end, into the shell case, touching the primer. The mouth of the shell case is then crimped to prevent the fuse from being retracted. When the nail is pulled against the spring and released, it ignites the primer and lights the fuse. Occasionally, a nonelectric detonator is placed at the mouth of the case and the case is filled with propellant. This variation is successful when the device is used with a trip-wire as a booby trap.



PULL BANNER

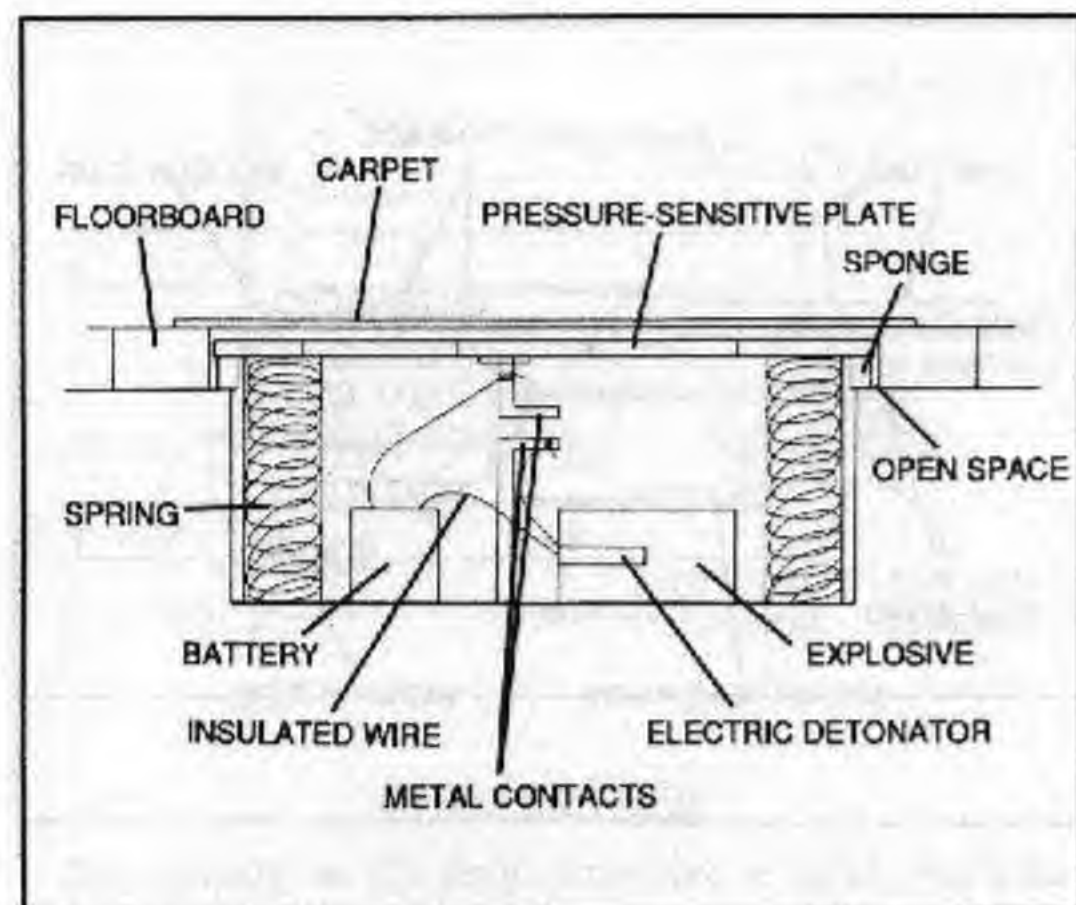
Only recently has this device been used in Turkey, but it has been seen in other countries for some time. This weapon is used as an antipolice and antigovernment device. Due to its construction, the device is directed against personnel drawn to the scene to take action on the outward appearance of the device, i.e., the flag.

The perpetrator will take a flag, usually displaying a communist symbol or illegal slogan, and place it in the ground. A cavity has been prepared beneath the ground containing the charge and battery. Stones, bricks, or metal fragments are placed above the cavity and in a pile around the flagpole. When the police, EOD personnel, or citizens who disagree with the flag's symbolism try to pull it out of the ground, the contacts meet and detonate the device. The shrapnel effect has proved fatal to individuals attempting to extract the flag.



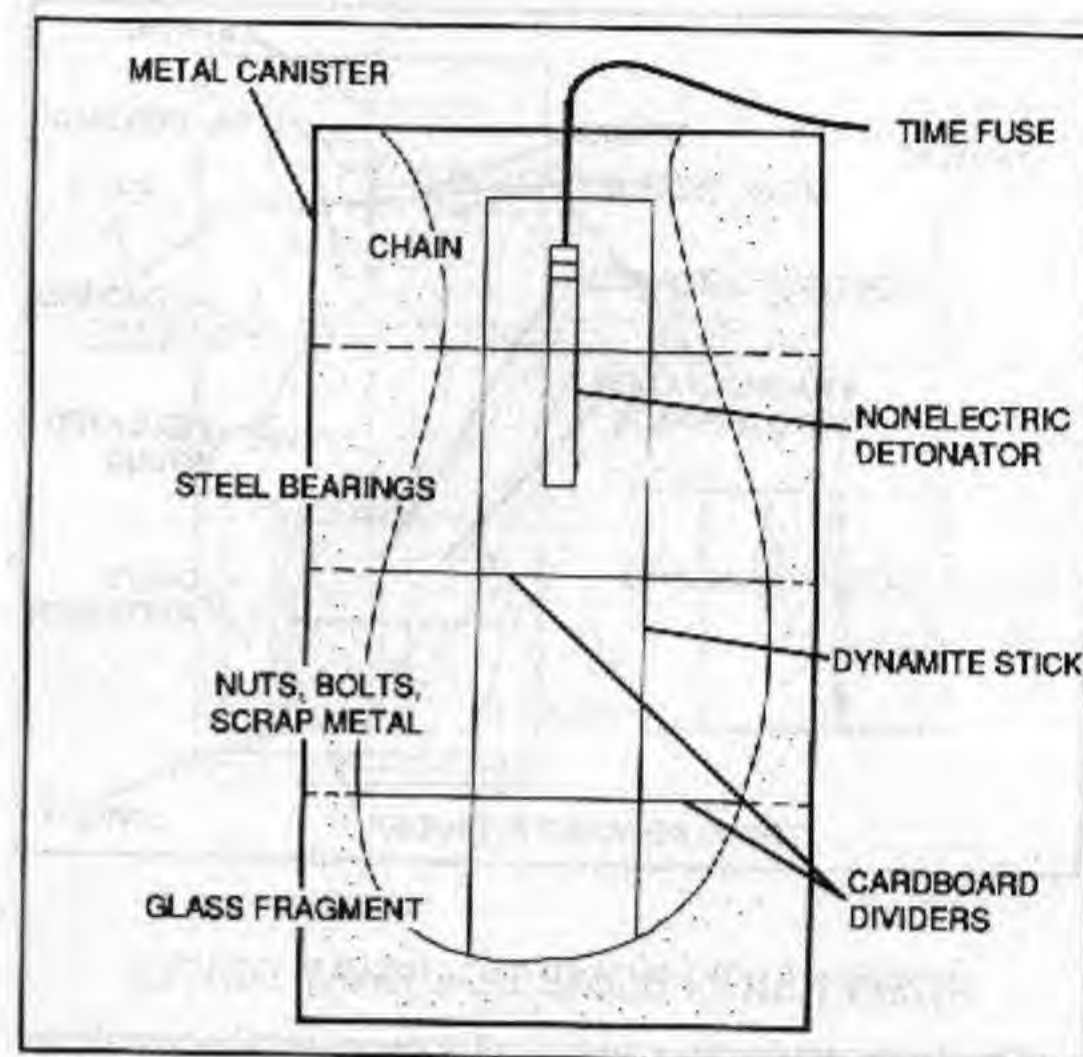
PULL-TYPE FIRING DEVICE

This complicated device was designed to substitute for matches as a fuse lighter. A wooden tube is constructed with one end open. The opposite end contains two holes. A paste of match heads is placed around the interior of the closed end of the tube. Strips of abrasive are glued into the tube, extending from the paste mixture midway through the tube. A wooden plug, slightly smaller than the tube interior, is prepared by gluing match heads to it. An eyebolt is screwed into one end of the plug. A cord is attached to the eyebolt and passed through one of the holes in the tube's end cap. A time fuse, split to ease ignition, is placed into the other hole in the cap. To ignite the fuse, the plug is inserted into the tube and the cord pulled sharply. This causes the match heads to be ignited by the abrasive strips and in turn to ignite the paste. The resultant flare-up lights the fuse.



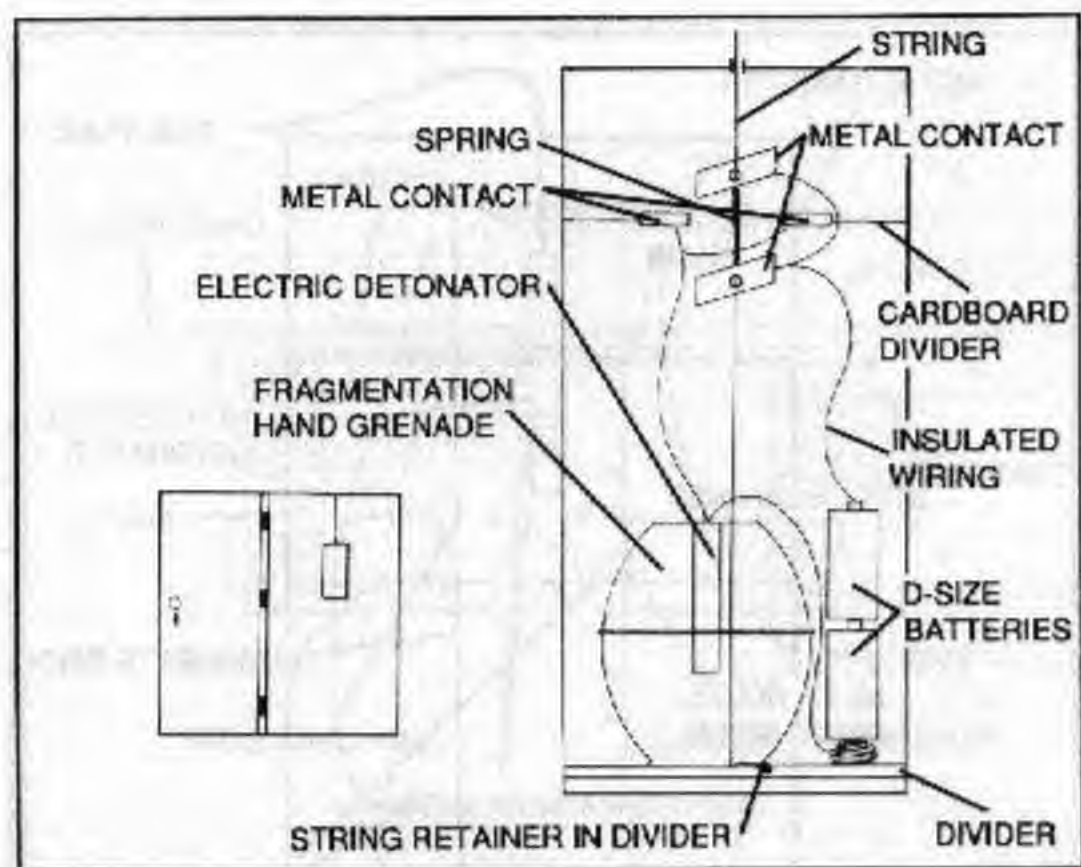
SAFE HOUSE INTRUSION BOMB

This device is used solely as an antipolice weapon against safe house searches. A space is constructed under the floorboards of a house, and a pressure plate on a spring system is attached. A twelve-volt battery is left in position there, and the pressure plate is covered with a piece of carpet. The trap is placed in an unoccupied part of the house and, of course, the terrorists avoid it. Police raiding parties, while searching for weapons or terrorists, are often lured to the trap by suicidal terrorists or strategically placed evidence.



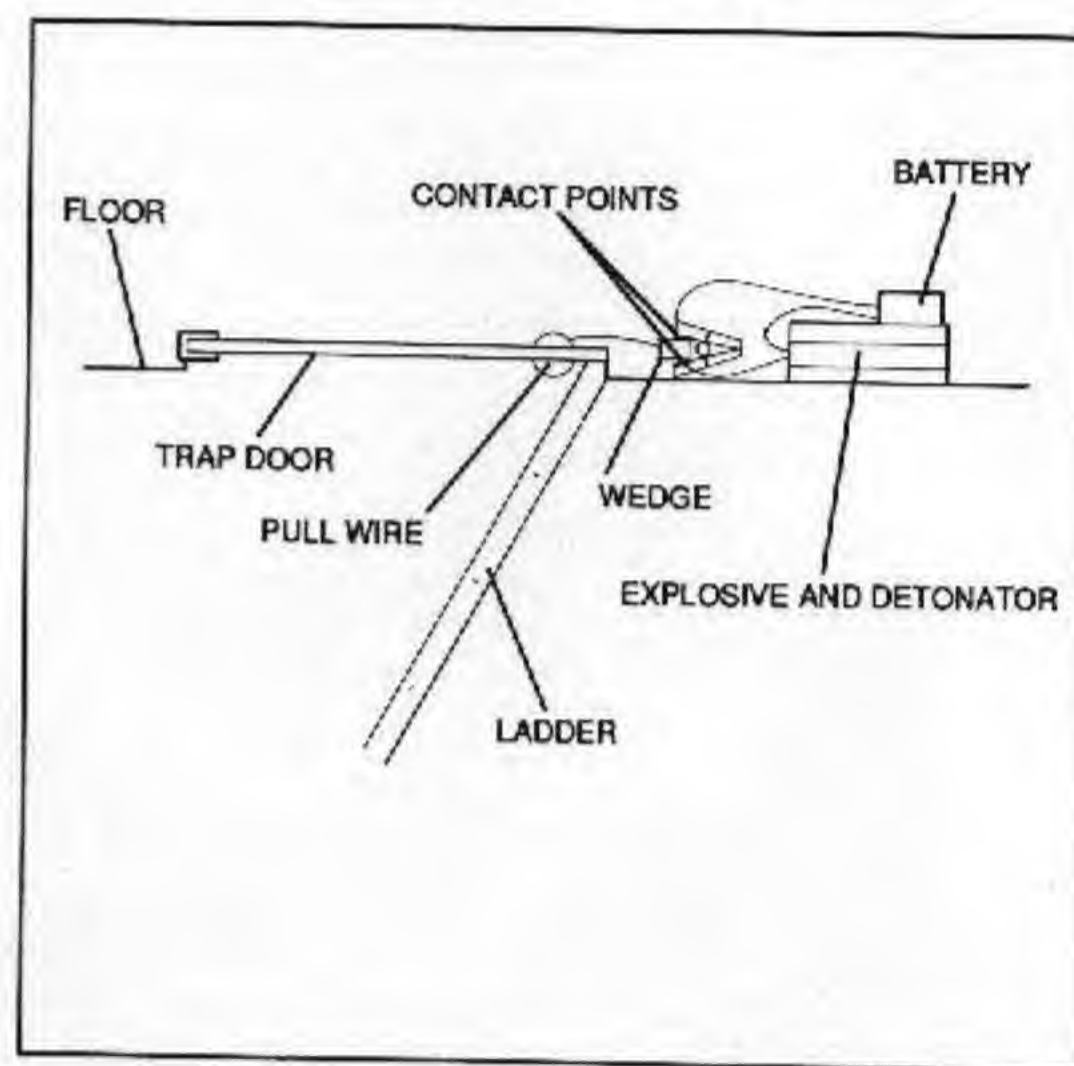
SEGMENTED ANTIPERSONNEL BOMB

This device has been used by both Armenian and PLO units operating in the Middle East. Captured terrorists have asserted that the bomb's purpose is to create an effective improvised explosives device against soft human targets. It has been placed in shopping centers and markets in Lebanon and Turkey. A single stick of dynamite is placed in a metal canister with segments of shrapnel. Cardboard dividers keep the shrapnel from mixing. On detonation, the range of this device varies due to the type of shrapnel used. Steel bearings, bolts, and scrap metal have far greater range than broken glass and lengths of chain. The detonator is usually a simple blasting cap with a time fuse. This device is carried to its target, concealed, and then the fuse is lit.



SUSPENSION BOMB/DOORWAY DEVICE

This basic device uses aspects of a pressure release/pull system. It is placed against a door and attached to the doorframe with a string. Upon seeing the device, the occupant is tempted to pull the shoe-box-size object down. The carefully made device is very sensitive to shock and uses sliding contact plates to bridge fixed contact strips should pressure be applied or released. This causes an electric detonator and battery source to detonate a fragmentation hand grenade that has had its fuse removed.



TRAP DOOR DEVICE

The attic spaces of many terrorist safe houses are used for weapon storage. Local police agencies usually search the upper levels of safe houses by sending officers through every door that is discovered. Terrorists have devised a method of killing or injuring policemen by connecting a clothespin detonator to the trap door. As the door is lifted, a wire pulls a wooden wedge from the clothespin. The main explosive is lateral at face level. The use of the device has resulted in the refusal by many officers to search attic areas.

The war-torn Middle East has become synonymous with terror bombings, and the devices used are remarkably simple in design, cleverly disguised, and extremely lethal. Ominously, there is an increasing likelihood of encountering one of these bombs in U.S. cities, says the author of this book, who has more than 15 years' experience with "every three-letter antiterrorist, drug enforcement, and law-enforcement agency in Washington," as well as hands-on experience with the national police and military forces of five Middle Eastern countries (including Lebanon and Israel), several Latin American countries, and INTERPOL.

Many of the 35 improvised bombs described in this book have been found on terrorists and drug traffickers seeking entry into the United States. Partially constructed bombs, as well as materials and instructions for their completion, have been found secretly cached deep within our borders. This book has been written as a warning and training manual for police officers, EOD personnel, security providers, and concerned citizens threatened by the ever-widening tide of international terrorism.

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